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THE JOURNAL  
OF  
MENTAL SCIENCE.

**EDITORS:**

J. Chambers, M.D.  
Lewis C. Bruce, M.D.

J. R. Lord, M.B.  
Thomas Drapes, M.B.



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## Exchange Journals.

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### **British.**

Asylum News; Brain; British Medical Journal; Bristol Medico-Chirurgical Journal; Dublin Medical Journal; Edinburgh Medical Journal; Glasgow Medical Journal; Hospital; Lancet; Mind; Proceedings of the Society for Psychical Research; Scottish Medical and Surgical Journal; Review of Neurology and Psychiatry; British Journal of Psychology.

### **American.**

Alienist and Neurologist; Journal of Insanity; Journal of Medical Sciences; Journal of Comparative Neurology; Journal of Mental and Nervous Diseases; Journal of Mental Pathology; Journal of Psychology; Medicine; Monthly Cyclopædia of Practical Medicine; Psychological Review; Quarterly Journal of Inebriety; Reports of the Smithsonian Institute; Transactions of the American Medico-Psychological Association; Universal Medical Journal.

### **French.**

Archives Anthropologie Criminelle; Annales Médico-Psychologiques; Annales des Sciences Psychiques; Archives de Neurologie; Gazette des Hôpitaux; Journal de Médecine de Bordeaux; Nouvelle Iconographie de la Salpêtrière; Polybiblion; Progrès Médicale; Revue Philosophique; Revue de Psychiatrie; Revue Scientifique; Revue de l'Hypnotisme; Bulletin de l'Institut Psychique.

### **Belgian.**

Bulletin de la Société de Médecine Mentale de Belgique.

### **German.**

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### **Italian.**

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### **Russian.**

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"In adopting our title of the *Journal of Mental Science*, published by authority of the Medico-Psychological Association, we profess that we cultivate in our pages mental science of a particular kind, namely, such mental science as appertains to medical men who are engaged in the treatment of the insane. But it has been objected that the term mental science is inapplicable, and that the term mental physiology or mental pathology, or psychology, or psychiatry (a term much affected by our German brethren), would have been more correct and appropriate; and that, moreover, we do not deal in mental science, which is properly the sphere of the aspiring metaphysical intellect. If mental science is strictly synonymous with metaphysics, these objections are certainly valid; for although we do not eschew metaphysical discussion, the aim of this JOURNAL is certainly bent upon more attainable objects than the pursuit of those recondite inquiries which have occupied the most ambitious intellects from the time of Plato to the present, with so much labour and so little result. But while we admit that metaphysics may be called one department of mental science, we maintain that mental physiology and mental pathology are also mental science under a different aspect. While metaphysics may be called speculative mental science, mental physiology and pathology, with their vast range of inquiry into insanity, education, crime, and all things which tend to preserve mental health, or to produce mental disease, are not less questions of mental science in its practical, that is in its sociological point of view. If it were not unjust to high mathematics to compare it in any way with abstruse metaphysics, it would illustrate our meaning to say that our practical mental science would fairly bear the same relation to the mental science of the metaphysicians as applied mathematics bears to the pure science. In both instances the aim of the pure science is the attainment of abstract truth; its utility, however, frequently going no further than to serve as a gymnasium for the intellect. In both instances the mixed science aims at, and, to a certain extent, attains immediate practical results of the greatest utility to the welfare of mankind; we therefore maintain that our JOURNAL is not inaptly called the *Journal of Mental Science*, although the science may only attempt to deal with sociological and medical inquiries, relating either to the preservation of the health of the mind or to the amelioration or cure of its diseases; and although not soaring to the height of abstruse metaphysics, we only aim at such metaphysical knowledge as may be available to our purposes, as the mechanician uses the formularies of mathematics. This is our view of the kind of mental science which physicians engaged in the grave responsibility of caring for the mental health of their fellow-men may, in all modesty, pretend to cultivate; and while we cannot doubt that all additions to our certain knowledge in the speculative department of the science will be great gain, the necessities of duty and of danger must ever compel us to pursue that knowledge which is to be obtained in the practical departments of science with the earnestness of real workmen. The captain of a ship would be none the worse for being well acquainted with the higher branches of astronomical science, but it is the practical part of that science as it is applicable to navigation which he is compelled to study."—Sir J. C. Bucknill M.D., F.R.S.

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Part I.—Original Articles.

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*Mental Organization: An Introductory Chapter.* By  
HENRY MAUDSLEY, M.D.

THE command laid upon mankind to increase and multiply on earth has been gladly obeyed and abundantly fulfilled. In parts thereof the multiplication has sometimes gone beyond the means of subsistence, and the unoccupied parts suitable for human habitation become scarcer, though there are yet vast areas of undeveloped land in the South American Continent. Nevertheless the race continues to multiply without regard to the possible risk that it may one day outgrow its means of subsistence, increase of population and increase of trade being the ideals which it is thought right to pursue in order to maintain and increase the health, wealth, and prosperity of the nation in particular and of the race in general. The more babies that are born and reared in a country, the more bargains that are made in it, the more wants and their gratifications are multiplied, the sounder is its strength and the brighter its future outlook, although it is not unimaginable that fewer children, fewer wants, fewer bargains might sometimes produce more health, more virtue, more progress, more stability. That, however, is an unbecoming suspicion to harbour, for it is unworthy the trust which it behoves a right-thinking mind to put in the providential scheme of the universe and its benevolent workings for human ends. Impotent to com-

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prehend the mystery of things, foolish to expect it, fatuous to bewail his inability to get behind the veil, which would be to get absolutely out of his relative self, man is yet sure that the universe was created and works for his advantage and perfecting, and in that happy faith counts an unlimited procreation in gratification of a natural lust his proper and pleasing duty. The instinct of human nature dictates it, therefore the laws of universal nature were framed to sanctify it.

Imbued with the lofty sense of his supreme worth and immortal destiny he doubts not that the small fraction of the universe on which he plays his predominant part is typical of the whole, and his intelligence a true sample of an universal intelligence; for, being *one* himself, how can he choose but think *ONE* intelligence, if he thinks it at all? Wondrous strange it would be if he, thinking necessarily in terms of a personal self, had not made the inference and believed it sound. Not that he presumptuously imagines his mind to be the measure of the universe, although necessarily the measure of the particular universe which it creates for itself, or, more properly speaking, which is created for and by it out of the interaction between organism and outer world; all that he modestly insists on is that his mind is derived from, of the same nature with, and a section of the universal mind. Because he designedly constructs a watch, an engine, a battleship, and other ingenious mechanisms by a series of patient and toilsome adaptations of means to ends, he is sure that the universe was constructed after the all-comprehensive design of an universal mind working like him by intelligent processes of adaptation, only in that large case without the forethought, labour and contrivance which his progressive adaptations cost him. Thus to fashion an universal designing mind after the type of his mind, yet in the same breath to eliminate the toils, experiments and adaptations by which this has got itself constructed, is to go far to spoil and invalidate the inference. Is it not withal presumptuous, if not preposterous, to transform human limited foresight into a Divine foreseeing, and thus to degrade omniscience into Providence? Evidently it is more easy and agreeable to put the manlike into God than the Godlike into man.

Besides, it is not easily thinkable that absolutely intelligent and omnipotent mind should ever be so cabined and confined

in its sectional human and animal embodiments as to lose all but the merest fraction of its power and intelligence, and to go through a succession of tentative and many times abortive travails to attain an often imperfect success. For many organisms, judged by human understanding of means and ends, fall much short of ideal perfection, when they are not, as they sometimes are, cumbersome structures grotesquely fitted for their laboured functions. If adaptation to the environment be the law of organic development, they must have had odd environments or have adapted themselves oddly to them, satisfied thereafter to try no new and less strangely circuitous adaptations. In their uncouth, contorted, or otherwise ungraceful bodies the organic flux, like a much-winding river, plainly went round about along the line of least resistance when it was hindered from going directly forwards, making that natural election in the absence of a more propitious natural selection. Even the human eye, notwithstanding its long process of elaborate formation and admirable structure, is said not to be so perfect an organ of sight as it might be, and the human body is subject to incommodities which detract much from its excellence as a perfect machine.

Be that as it may, the human mind could no more in the first instance have designed the construction of a watch or an engine by any premeditative contrivance than it could have constructed an universe. It was obliged first itself to undergo gradual construction, succeeding thus by the requisite modifications and adaptations in fashioning the perfect mechanism, which was then the consolidate embodiment of many tentative and partial designs; after which, by virtue of the accomplished effect, the perfected design built up in fit plexus of mental structure by the inductions of experience, it was able deductively to apply this to predict and produce similar effects, and thus properly test and verify its value. By working experience and the consequent physical structuralization in the brain—the literal in-struction or in-formation, that is, of cerebral plexuses of structure and function—were the incorporation of memories in knowledge and the required skill gained: without such definitely organized plexuses the mental function which they embody and discharge never was, nor is, nor probably ever can be performed on earth. When these are destroyed in the individual brain, its memory of the past is lost and conscious-

ness disappears with its contents. In all its various kinds and degrees, whether as taste, touch, emotion, or thought, consciousness is a dependent phenomenon or so-called epiphenomenon which constantly vanishes dream-like into nothingness or the void. In dreams, at any rate, it cannot be said to precede or work in the mental creation ; it obviously then dances a ridiculously servile attendance on their fantastical fictions.

A truth which, rightly apprehended, might perhaps serve to clarify some obscurity of thought is that ideas, like purposive movements, must always be learned gradually by steps of patient performance. Then the ratio—the *rational* which is rightly proportioned adaptation organized in structure—is discharged consciously in function as reason. Without such previously structuralized reason or *rationalized* structure through the adaptive interactions of the individual organism and its medium no idea could be formed and performed and there could be no conscious reason. To make reason the prescriptive attribute of a postulated separate spiritual entity is to overlook the entire process of its formation and the conditions of its function in every developing mental organization. In the finely complex and condensed structure of a fly's small body is concentrated more reason, implicit or, so to speak, embedded, than conscious intelligence is likely for a long time, if ever, to find out and equally structuralize. Whence comes its structuralized or so-called instinctive reason if not from fitly proportioned or rational adaptations of experience through past ages of development ? In the procreative act, which the human species nowise learnt from any animal species nor any animal species from it, there is latent instinctively a fund of silent embodied intelligence which, had procreation to commence now for the first time, it would need to spend a good deal of conscious contriving to accomplish. Intelligence in what is presumably an intelligently constructed universe is obviously not confined to its human embodiments and conscious manifestations ; its function is performed silently and steadily, without the exultation which a self-conscious and self-worshipping being can never sufficiently admire and express when he functions more or less intelligently.

In no case, then, is the performance of an idea done by a separate entity in the body which is called *the* mind any more than a purposive movement is performed by an imagined spirit

of motion, or the function of any bodily organ by its particular animal spirit, as was once supposed. And not quite absurdly, since the notion of its special *animal spirit* was an obscure but just recognition of its quasi-intelligent concert and co-operation in the complex harmony which the whole organism is or ought to be. Be that as it may, the idea is not performed by a separate mind; it is mind, not in only but of it, and is performed well or ill by the individual self who is an essential and indivisible unity of body and mind—directly, in fact, by the special nervous organization which represents in its complex structure and function every organ and function of the whole body. Into the composition of every thought which is performed has every organ and every gland of the body entered; the minutely different structures and physico-chemical changes of individual parts in different persons producing different temperaments, and the signally special organs of the male and female bodies different mental qualities sanely requiring their special directions of development. Scornfully to deride the notion of mechanism as anywise applicable to life and life in mind is natural to a person who, ignorant of the exquisitely subtile physical and chemical processes at work in the simplest vital substance, can only think crudely of inert matter, and of mechanism as exemplified in the structure of a wheelbarrow or a steam-engine. When the mind is said, then, to pursue tracks of thought, what is really implied is that particular tracts of a mental organization are in action, and that conscious mental function is concomitant or sequent; not otherwise than as in the riot of delirium there is, literally speaking, dis-tracted function, which is function off the normal tracks. Just, indeed, as the proper nervous plexus actuates the definite movements of motor apprehension when the hand purposely grasps an object, the specific mental motion preceding the specific muscular action, so its proper nervous plexus in the supreme cerebral layers actuates the definite mental apprehension; both functions in the dejection of disease and the tedious decline of old age becoming weaker and more sluggish in performance; for senile decay, as it passes wearily to second childhood, lingers, staggers and stumbles in mental as it does in motor apprehension, till both end fitly at last.

It might be a gain to mental science if those who write diffusely about mind were to descend from generalities to a clear



and distinct idea of mental organization and, having done so, always in thinking to substitute mentally the positive definition for the word mind. Thus stooping they might impart life and substance to expatiations which are apt to become vague, pale and lifeless abstractions, for they could hardly then fail to realize that mind imports life in mind and conduct, and that the study of it and its adaptive relations apart from life is devoid of positive basis. Formal logic might, it is true, suffer, for assuredly life is not, nor ever will be, logic. Helpful, too, it might be in the matter if more thought were given to the close analogy between idea and movement. In grasping a small object where a nice adaptation of finger and thumb would suffice and be graceful, the ungainly use of the whole hand, or at first perhaps of the whole arm and shoulder, is ugly, for it is disproportionate, unapt, therefore essentially irrational. In like manner a nicely adapted act of the trained right hand becomes irrational when attempted by the untrained left hand, being then quite disproportionate and ungraceful. Now an exactly similar want of relation and ratio is oftentimes notable in mental apprehension: an untaught mind is as clumsy and ungainly in grasping and performing an idea as an untaught hand in the nice grasp and use of a small instrument. For the idea is a grasping or apprehension on the higher psychical plane of the supreme cerebral centres of motor intuition, and never could be thus grasped save by the co-operation of the more abstract, or, so to speak, sublimated motor and sensory factors of the lower nervous centres represented in them. As right vision is an exact apprehension of the image of an object impressed on the retina, so the clear and distinct idea is the exact apprehension of the precedent and underlying sensori-motor adaptations—of its image, so to speak.

Motor reactions contribute as essentially as sensory impressions to the construction of a mental organization, and fitly respond to them in the complex compositions of judgment. When the expert batsman in a game of cricket watches with concentrated attention the flight, pace and pitch of the ball which the bowler sends him, and tensely combines and uses all the muscles of his body to perform the right stroke to play it, the matter is not one of apparently simple sensory perception, but of perceptual intelligence in which the higher centres of mental organization have their essential share; the right complex and

concrete judgment for each occasion has been formed gradually by continued practice in correcting the wrong and applying the right muscular action. He does not then merely see the ball and make a random stroke, as the beginner does; he minds what he sees, and intuitively or, as it were, instinctively judges and performs his proper skilled act, which he could not do if he had not diligently organized the proper mental plexuses.<sup>(1)</sup> Such specially acquired judgments, formed and consolidated by experience, constitute indeed the essence of all instructed perception, and they require for their formation answering varieties of motion to varieties of sense. The old saying, *Nihil est in intellectu quod non prius fuerat in sensu*, might, perhaps, not unfitly be supplemented, not by the witty *nisi ipse intellectus*, but by *et in motu*. That the whole body enters into the constitution of every mood, thought and feeling is nowise the extravagant statement which it appears superficially to be. Man is essentially a unity, not the disunity which the union of two separate unities, mix them as he may, would really be.

Being an organized federation of many nervous plexuses or so-called complexes which may act separately, and movement-like oftentimes act automatically in mental function, as well as through the complex intra-mental associations which issue in concepts, judgments and rational actions, mind, like body, acts in parts, seldom, if ever, as a vital whole in most persons.<sup>(2)</sup> Notably does a special tract of it sometimes reach such a height of exaggerated and almost exclusive activity as to inhibit other mental function, as in states of deep absence of mind, when, in fact, a great part of mind is practically absent; in the ecstasy or transport of horror or panic of fear, the intensely strained part of it being then functionally transported or rapt out of it; in the fascinated bird which is said to drop paralysed into the cat's mouth, and in the terror-stricken rabbit which crouches in motionless collapse until the pursuing stoat seizes it; in the hypnotized person who is abjectly servile to suggestion; in the distraction of passionate fury, when reason is in complete abeyance; all which extremes are but extraordinary and abnormal instances of ordinary and normal mental processes. That is the reason, too, why in a more chronic way persons who have been educated in the practice and have sedulously cultivated the habit of a dissociated compartment of mind are able to keep it reason-tight, as a reserved and sacredly tabooed

territory in which they can honestly believe by faith what is incredible to reason—that is, to a whole mind rationally constructed and exercised; the reason, too, why the primitive savage amazes the missionary, stoneblind to his own unreasons, by his utter impermeability to the plainest evidence which blankly contradicts his totemic beliefs and customs. Until psychology comes down from its misty heights and abstractions to the positive study of biology and lays its foundations solidly in a science of life not separated by any restrictive or obstructive barriers from other sciences, it cannot do what it may hope to do when it adds to its subjective study of mental phenomena a positive study of their basic origin and growth, and thus gives its aid to the construction of a scientific *psychogeny* and *psychonomy*.

Positive study of the genesis and development of mind in the process of organic evolution must obviously tend not only to produce more correct notions of its relative nature, but might perhaps serve usefully to lower its soaring flights of fanciful thought. To transfer to universal mind as absolute origin and beginning of things, itself without beginning, attributes of foreseeing, designing, fashioning, loving and hating, which are strictly relative and very limited functions of mental organizations which begin and end, implies a sheer abolition of all the definite qualities of mind and conditions of its operation as known positively: it is to translate that which is the last effect of evolution, as we know it, into a creative cause of evolution deprived of all by which we know it. Thus to wipe concrete mind clean out and then anthropomorphically to bring it to abstract life in the absolute may be, after all, nothing else but a flattering apotheosis of human self-adoration, which, rightly or wrongly, is well-nigh unlimited. Besides being illogical to imagine, it is a sort of impiety to profess to know qualities in that which in the same breath is justly declared to be incomprehensible and ineffable—in fact, to convert a humble and reverent agnosticism into a positive and definite gnosticism. No doubt eternal and infinite mind, if imaged humanly as primal reality, which is absurd, seeing that it is avowedly ultra-human, must be interpreted in terms of human thought and fashioned symbolically into some sort of idealized personality, so far as possible divested of its limitations; not now as the once grotesque image of a magnified man, for the gods of men change from age

to age more than men themselves, but refined, or, to speak, volatilized into a luminous haze of transcendent spiritual feeling which is undefinable in thought, sensible only to fine spiritual feeling; *this* prone then, unless wisely ruled, to become mystical debauch of feeling, the more thinly strained and mentally debilitating it is.<sup>(3)</sup> Its thrilling delight withal is no case proof of its value, for no delight equals the occasional rapture of a pleasing delirium, as no sanely imaginable hell equals the horror of a horrible delirium. Was any sane mortal ever so continuously happy as is the insane general paralytic? Being incurable, he cannot, like the old Grecian madman, whose delight it was to sit in the empty theatre and applaud an imaginary play, exclaim sorrowfully when his friends had cured him of his pleasant delusion :

Pol, me occidistis amici,  
Non servastis.

Charles Lamb, who had a brief attack of mania, wrote to Coleridge after his recovery, "While it lasted I had many hours of pure happiness. Dream not, Coleridge, of having tasted all the grandeur of and wildness of fancy till you have gone mad. All now seems to me vapid, comparatively so." Eloquent writers, like Jeremy Taylor, have used all the resources of language to depict in flaming rhetoric the burning torments of hell through endless time, but their pictures were in the end unfelt fantasies of the imagination which did not seriously horrify their hearers, rather perhaps pungently tickled their fancies, not as in a torturing delirium unspeakable horrors of feeling from which death would be a blest deliverance.

Such the substantial horrors created by a distracted nervous organization which are felt in and by a hurt spiritual mind whose essentially separate and independent nature, as the dualist holds, owes nothing to the body which thus sorely wounds it by some mysterious interaction; the very mystery of the unity of disunities being then embraced and hugged as positively certifying and even hallowing the breach of evolutionary continuity and the irruption of a special creation, just as the undiscovered origin of life is still revered as a creative mystery. Why so, seeing that in a divinely governed universe all things

are equally divine, body no less so than mind, non-living than living matter? The human mind creates its beliefs, as it needs must in the onward motion of its life, and belief in something fixed for the time being it will have; it is natural to it, therefore, to believe in a special creation for the occasion suiting its state of development, even though it contentedly abandon it at the next station of thought at which it arrives.

The plain truth of observation is that ecstasy, though it may exalt and delight, is nowise sound and wholesome mental function; it denotes more or less distortion or deformity of mind, being a quasi-convulsive or delirious rapture of special tracts of thought (an *ἐκστάσις*, or standing out of them), with an accompanying exaltation of feeling; with the thereupon following notion that spasm of thought, when dignified as intuition, and spasm of feeling, when spiritualized as faith, are mystically divine. Yet in no case is mental any more than bodily convulsion strength. A dose of opium or like acting drug will produce a like mental beatification in fitly sensitive brains, gloriously lengthening time into eternity, expanding space into infinity, melting individuality into universality; the transport equalling or surpassing that which the disequibrated mystic feels when he, or more commonly she, passes, as alleged, beyond humanity, but does not, as might sometimes be wished, stay there. When the several parts of the cerebral federation work together in close, compact, and harmonious co-operation, they sustain and strengthen one another; when a federated part is in excessive and unruly action it weakens or inhibits other parts and so far disables the whole, for it denotes a functional and tends to a fixed disintegration. To keep a special compartment of mind reason-tight cannot fail to impair its full rational powers and to endanger a quite wholesome moral nature. Being a sort of partial mutilation, it is liable to produce detrimental effects; for a complete division never is practically possible, subtle under-currents of thought and feeling, latent but not quite inactive, running deeply beneath conscious reason and faith and stirring a lurking doubt or suspicion. The person is driven to do his utmost to ignore or suppress doubts which he secretly feels that he ought to face frankly, thus to foster an unwitting self-deception and to prejudice his whole intellectual and moral nature—its integrity, not in the sense only of wholeness, but also in the sense of entire moral soundness.

Human notions of Providential designs being at bottom presumptuous transferences of a relative being's experiences, as he thinks purposely in time and space, to absolute, eternal, illimitable Being in relation to which it is absurd to speak of purpose, time or space, it is no marvel that many events mightily perplex and trouble him. He finds it hard to discover the designs of them, and is forced to bow his reason to the adoration of an inscrutable mystery: the design, for example, of the natural and necessary earthquake which destroys a whole city and citiful of busy people, or whole-heartedly to admire the tiger's fearful symmetry and the exquisite designs of numberless other animal structures framed fitly for the destruction of numberless weaker creatures framed equally fitly to suffer terror and destruction<sup>(1)</sup>; finds it hard, in fact, to see the design of evil in the world, although without evil good could not be any more than cold without heat or light without darkness, seeing that they are antirelates, if not correlates, in co-existent being—seemingly unifiable by Hegelian synthesis—and appear to maintain the existing equilibrium of things by their opposite forces. As the human mind necessarily makes divisions of sciences for its purposes of apprehension and action, setting divisions in thought between that which is not divided in nature, so it forms separate and static intellectual concepts—it could not think and act to any useful purpose if it did not—sundering that which is continuous and perplexing itself thereafter with the divisions and oppositions which it makes and then treats as fixed realities. How could individuality, being more or less of a separation during its temporary yet not wholly detached being, do otherwise? But as a true scientific philosophy must bring the separate and self-regarding sciences, now for the most part speaking different and reciprocally unintelligible languages, into intelligent relations and co-operative union, so a true psychology must be founded on a clear and distinct recognition of the essential continuity and constant flux of things, in which all so-called causes are effects and all so-called effects causes: mind be conceived in thought as a part of the nature which its organization is in fact. Continuity of motion without end, the perpetual flux of things which the old Greek philosophers, Democritus and Heraclitus, insisted on and Lucretius so lucidly and logically expounded, that is the fundamental fact: the world never the same for an instant, nor



two minds ever the same, nor any mind ever the same for a single hour.

As separations and oppositions of thought are static concepts, like hours and years, months and centuries, miles and millimetres, artificially dividing and parcelling what is continuous, they so far falsify the dynamic flux of nature wherein all things mingle into each other's being, good springing from evil and evil linked to good, and good being evil and evil good according to circumstances. He who is hurt naturally thinks his hurt an evil and wails accordingly, but it is better that he should break his leg or his neck when he falls carelessly or clumsily than it would be for the law of gravitation to be suspended for a moment in his interest and for the universe to be wrecked as he by self-conservative instinct would have it be. His personality, which is a small and passing thing, suffers rightly in the interest of the whole, which is a great and continuing thing. To think otherwise is to take himself too seriously and overrate his being and doings in the universe, as it is the habit of the species to do, being its own self-valuer with no supervising check on its self-valuation. After all, it is possible that the universe has not been created and set going wholly and solely for his benefit, as he tacitly assumes or openly declares, and the final audit of human accounts on earth, summing up the *mortalium rerum ludibria*, may not tally with the human appraisal. Wonderful in truth it would be if the human species were free from the bias of self and able to judge impartially concerning itself, seeing how mighty a self-glorification, self-adulation, self-worship its self-estimate inspires.

Reflecting on the order of the universe, not from fixed points of causes and effects, but as a continuity of motion without end, a perpetual flux of the mighty tide of being and becoming; and, furthermore, considering curiously what an impartial observer, looking down on the earth-planet from the moon, might think of its human swarms and their doings—it is not difficult to picture a gradual transition from the most simple to the most complex, from inanimate to animate matter, from nascent sensibility to the most exquisite sense, from reflex nervous organization to mental organization, which is the supreme achievement of organic evolution, its present crown and climax in man and its possible consummation. How shall that consummation eventuate in the particular nation whose really

pursued ideals are indefinitely to increase the volume of its trade, the number of its babies, the stores of its wealth, and the variety and vigour of its amusements? It is a not quite uninteresting nor irrelevant question for any nation which, loudly vaunting a civilization consisting mainly in the eager pursuit of these ideals, pays little or no heed to its ethical foundations. A nation, like an individual organism, may nurse within itself the seeds of its own decline, although, like it, loth to think it and glad to believe itself immortal; a result which, when all is said, would be a grave hindrance to the progressive flux of humanity moving slowly on, despite its refluxes, to a fondly expected perfection. For, if death be the "last enemy" of the individual mortal and nation, it has always been, is now, and ever shall be the best friend of the race.

(<sup>1</sup>) And it is the reason why the expert cricketer, when he has occupied an hour in blocking ball after ball without making more than half a dozen lucky runs—which is now called admirable sound defence, as if sound defence was the right way to win a battle—and then attempts his only real stroke, whether a hard drive to the on or the off, or a hit to leg, he has got his mind and muscles so set by prolonged routine of practice that they are not immediately pliable enough to make the stroke rightly, and he is forthwith caught or bowled. He is not unlike a person who, thinking painfully too long and precisely on the event, cannot come to a decision, or, if he does, as likely as not makes a wrong decision. In the play of life, as in the play of cricket, a too self-conscious and exclusive heed to the individual score spoils the game. There may be some measure of truth in the reported saying of Cromwell that a man never rises so high as when he does not know where he is going, although Cardinal de Retz (in his *Mémoires*), when the saying was repeated to him, said, "S'il est de ce sentiment, il me paraît d'un fou."

(<sup>2</sup>) The largest part of mind is usually quiescent in its habitual functioning and a large part of its mentality always undeveloped. Consider how easily a person who has been taught and trained to speak three or four languages can speak them without suffering any apparent deduction from his proper mentality; and, again, how readily one who has learnt long passages of poetry by heart as a child can, once they are well started, repeat them by rote in old age without the least thought or effort. How many, then, the unused mental tracts in most minds on which no register of function is ever made, and how few the tracts which ever function as they might do in them! It is not so much more mind that is wanted in the majority of mankind, who for the most part do not reason, not having the least notion that reason, like speech, needs to be learnt, as more use of the uncultivated mental tracts which are left derelict. However much is put into a mind, there is commonly room for more, if the contents are rightly packed.

(<sup>3</sup>) For purposes of worship a personalization of some kind is inevitable. How pray and praise otherwise? Hence such expressions as "Our Father," "King of Kings," "Lord of Lords," "Almighty Wings," and the like symbols of an ultimate reality. What would become of the spiritual feeling and melody of some of the Psalms, and of the fervent curses of others of them, if they were not addressed to a personal Being? It is related of Queen Victoria that, when a favourite lady-in-waiting was dilating on the joy it would be to meet in heaven, not only those who had been dear on earth but such biblical persons as Abraham, Isaac, David, etc., the Queen curtly interjected, "I do *not* wish to meet David." Many devotional hymns in common use, if understood literally, would grossly shock feeling by their crudities of expression and utter absence of real poetry,

were it not for the hallowed associations of custom and place of worship, and for the moving melody of the familiar tunes by which is uttered in song what cannot be expressed in words. The deepest and inmost utterances of nature are in cries and songs of discharged feeling, not in definite articulations of words, which are specific motor adaptations of expression: the deep feelings of religion and love, therefore exclamations of feeling inexpressible in words, ineffable. Symbols, metaphors, and ceremonials have always been necessary to give form to feeling, the mistake having been to count those befitting one stage of human development unchangeable and suitable to all succeeding generations.

(4) Cannot now heartily sympathize with the *Bridgwater Treatise* in its naïve admiration of "the infinite and ineffable wisdom with which the various instincts are planted in animals to fit them for the respective purposes they were designed for." Although the fact is grateful to the understanding, it is grating to the æsthetic and moral sensibilities which nature is now evolving through human nature in its onward progress.

*The Presidential Address*, delivered at the Opening Meeting of the Section of Psychiatry of the Royal Society of Medicine, on October 22nd, 1912. By Sir GEORGE H. SAVAGE, M.D.

GENTLEMEN,—I welcome you to this the first meeting of the first new Section of the Royal Society of Medicine. I have consented to give an inaugural address, somewhat against my feelings, for I believe that as this Section is one starting with the full intention of work for the advance of medical science, time might have been better occupied in learning definite results of original work than in hearing generalities. I have to admit that I have had very long and perhaps exceptional opportunities of observing mental disorders, and it may be of service to record some of my impressions and hopes. I will shortly outline the past, survey the present, and prospect the future.

Fifty years ago we were proud in thinking that we English were the great protectors of the insane. We introduced humane treatments and were content that the patients should be protected, while also society was safeguarded from injury.

A time of heaping up of statistics followed, but it was long before the true spirit of scientific investigation arose, and it is for this work that we are now labouring. No time has been without its earnest workers, and we have to remember that men like Bevan Lewis, Wigglesworth and others have done valuable work in large asylums in the North, and that Crichton-Browne encouraged men like Ferrier to combine general neurology with the investigation of mental symptoms. Many of us, too, have very grateful recollection of the bright and

stimulating writings of Henry Maudsley, who, by endowing a hospital for mental diseases, is now doing his best to encourage original work. I cannot pass over Hack Tuke: he was one of the hardest workers I have ever met, and he had a power of taking from others the results of their work and reproducing it without bias or personal colour; I regret to find how little notice is now taken of his *Psychological Dictionary*, for in it are very many evidences that what seem to the younger men to be quite new and original observations or beliefs are neither new nor original. Hack Tuke was a great recorder, and he has left a definite basis on which we may safely build. His *Dictionary* is a mine of wealth still worth working. With Hack Tuke, too, passed the historian of insanity. I cannot here refer to the many lesser lights that have during the past half-century served to illuminate limited tracks along the paths of progress, as I must curtail my retrospect.

Often advance is determined by some apparently trivial discovery, and in this way one cannot ignore the importance of the differential staining of the nerve tissues. When I consider the tens of thousands of sections of brain and cord which I made at Bethlem Hospital, using only carmine and logwood, I heave a sigh of regret at the lost opportunities.

The coarser anatomy of the nervous system, with the recognition of the localization of function, to which Ferrier added so much, was a starting point for more careful study of the intimate structure of the nervous system.

I am fond of the idea that we are yet, however, only like the London cab-driver, who has a most intimate knowledge of the roads and streets of the City, yet can know nothing of what is going on within the houses. It is certain that we shall know more of what is going on within, but I dare not believe that we shall ever fully understand what life and consciousness are.

Science must, after all, be limited by the restrictions of our senses. We are all governed by the organised inquisitiveness which we call science; we are collectors of facts, but we must avoid being mere fact-heapers, for in the multitude of mere facts not knowledge but confusion arises. Though immense numbers are not to be looked upon as certain bases to build upon, yet equally we must not be misled by the specious consideration of single interesting cases. The single swallow does not make a summer, but it may warn us of its coming;

so the single case may direct our studies, but should not form at once the basis for a theory. As we move onward we must define our knowledge. As Sutton said long since, definitions are of use for one to rest upon while one is peering into the indefinite. The definite, as he said, had ceased to be alive. Death and the dead were definite. A definition should be the starting point for further investigation. Our special experience must make us alive to the danger of taking fancies for facts, and feelings for constant realities. Statistics we must have, but their value depends chiefly on the collectors. Mott has given us good examples of their value and importance. It takes long training to make a good judge, and we in England are very proud of our judges, yet in too many cases the medical observer is inclined to accept rapid one-sided observations, forming a hasty judgment on a few facts. Let us be collectors and recorders, but at the same time let us recognise that what seems to us to be fixed and established to-day may in the future prove to have been only partially true.

It was only a few years since it was proved that no body heavier than air could ever be made to move under direction through space, yet now we have our aeroplanes which show that this idea was a mistaken one. It is in this way that I feel we must accept experimental psychology and psychic analysis. I still find leaders in medicine saying, "What is their use? What have they added to medicine?" We must not be always seeking for immediate results, we must be prepared to follow truth wherever it leads.

That related bodily nerve areas indicated visceral disease seemed so unlikely that Head's most valuable contribution to neural physiology stood a good chance of being regarded as incredible and useless, but now we value the observations and see in them further possibilities, making us still more impressed with the unity of the whole body and how one member cannot suffer alone. There may be blind alleys, but yet many of these will open later. Science cannot be limited by the apparently utilitarian views. I have seen one year the dropped boulder from a glacier a crude and useless mass, which in another year became transferred into a corner-stone of a house. A dislocated but firmly established fact may later be the key-stone of the arch of progress, fitting in and supporting the whole structure.

And now as to our proper work. Probably we shall have to arrange for special sub-committees. It is certain that there must be a revising committee, whose duty will be to select for publication only such papers as seem to them to be of real value; sections for the material pathology will be necessary, and, on the other hand, there is need for special investigation of the psychical research and of hypnosis. These subjects cannot be ignored, but they require the utmost care in their consideration.

Some among us see in the inquiries of Freud danger of dwelling on the unhealthy side of our organic nature, but just as we use powerful and poisonous drugs in treating disease, so we may have to make use of means which, when ill-judged, may be dangerous. There is always more danger directly we approach subjects which cannot be fully recognised by our senses. For all we know there may be some simple material basis for the various spiritualistic exhibitions, but at present we have to remember that we are very easily misled by our senses, and that there is nothing more useful to mankind than prudent unbelief. Agnosticism in science is not infidelity, and we must cultivate it. We must have the open mind, for after all the scientific man, notwithstanding his training, not infrequently is the most self-satisfied and unreasonable person with whom you may have to do. I have elsewhere spoken of the danger of self-satisfied science. During the past summer, lying on mountain slopes, yet unable to forget that I had a great responsibility arising from my presidential address, I thought of many things, and among them some wild imaginations took possession of me, and I said to myself that after all imagination has its uses. In fact, some great discoverers have thought that imagination is all-important even in the most mechanical arts and sciences. Anyway, lying on a mountain slope I considered the address of Professor Schäfer on "Life and its Origin," and I must say it left me still a believer in something more than the mere chemical theory as to its origin.

All the elements, however arranged, are not equivalent to any living thing. Truly the chemist has built up wonderful, so-called organic compounds, but they do not live. Tyndall was allowed in former years to propound the theory that life might have come from another planet, but that only shifted the weight from the elephant to the tortoise. I shall not be

advancing knowledge, but I may start imagination, if I say I contemplated a universal force, call it vital ether, as yet unrecognised and possibly beyond human powers to recognise, which, like the astronomers' ether, is universal and prevalent, this acting on what are called living bodies according to their structure. In the vegetable world the machinery, the receiver, is limited in its powers, while in the developing scale of animals the vital ether is more and more in deep relationship with the organism. As long as the organism can receive this vital force it lives; when this power is lost the body becomes the mere clod. The consideration of this theory caused me much pleasure, but I admit it has no ground of fact, though it represents, perhaps, in a crude way, all we know of life. It is nearly related, I recognise, to other views both metaphysical and theological.

I thought of the captain of a ship who is constantly casting his searchlight into the darkness ahead of him that he may direct his course and avoid danger. So let imagination be as a searchlight, intermittent but penetrating. We must then be prepared to make experiment and trials even in what may appear unfavourable conditions, and we must be always ready to recognise our failures and be willing to try back. It is, however, rather saddening to see a distinguished man following some will o' the wisp though his friends may warn him of his error. Yet these may be beacon-light warnings. We may learn as much from our errors as from our successes.

As I have said, we must be diligent in collecting and recording, then will follow the classifying or arranging. In some cases naming is necessary—it is the evidence of advance, and has the value and danger of definition. A great danger arises from the too ready naming of groups of symptoms, as if they were entities. A traveller in a new land often gives names to honour men who have discovered or who have attained a world-wide celebrity, and some doctors are inclined to give names of men to disordered bodily states. I think this is a mistake. Let our naming be more natural and have some relation to the pathology. When one sees the endless names given to disorders depending really on some central sensory disorder, one is either amused or disgusted. But it must be admitted that we Englishmen might be jealous if the name of our

distinguished countryman Hughlings Jackson were disregarded in relation to epilepsy.

Hitherto, the two subjects of neurology and mental disorder have been separated, but with the more exact knowledge of the nervous system as a whole the distinction has become lessened, and neurology has claimed a very direct interest in mental diseases. This is doubtless an advantage from some points of view, but for those of us who have gone through a long training among the insane, it seems that the future neurologist needs such a section as this to give him help in understanding the working of the mind in disorder. The neurologist, following to some extent the lay public, looks upon asylum treatment as the very last to be followed, and even the alienist is forced by public opinion to fall in with plans which after all he believes to be only the second best. The prejudice against asylums may be said to be organic, but the dawn is near, and the mental hospitals and retreats will carry on the excellent work which our asylums have done and are now doing.

We here hope to study the nervous system as a whole. I have often quoted what Sir W. Gull said to me when I first went to Bethlem: "The brain is like a wealthy gentleman with many servants, and he may be badly served by any one of them." The brain is like the belly and its members and cannot suffer apart; and this is one of the most difficult lessons to learn and to teach—that though the mind may in many ways be apparently healthy, and though many of the reactions to the environment may be normal, yet the brain and the mind may be disordered. Almost daily I hear friends say that surely I cannot consider their relation mad for that he answers perfectly rationally when they talk to him on general or social subjects. There is only a limited number of ways in which the nervous system can express itself, and therefore similar symptoms will be present whether the central nervous system is primarily affected or whether its functions are interfered with by the misconduct of one of its servants. It must also never be forgotten that so-called mental disorder is gauged in relationship to conduct and that certain disorders depend more on the surroundings of the patient than on the patient himself. I have long been in the habit of referring to the social misfits which depend on the surrounding rather than on the patient. Social and mental disorders are nearly related, and one of our



most difficult problems is to decide where the badness ends and madness begins. And here once more would I maintain that there are many mental disorders which deserve the name "functional" in so far that they are not represented by any material change in the central nervous tissues. Nature provides the iron, but man makes the horse-shoe for service.

I have elsewhere written on morbid mental growths, and it is among such growths that we meet with some of the most intractable mental disorders. That the mean man should become with age a miser or that the cunning youth should become a thief is not surprising; yet I do not expect ever to find any special changes in the brain representing meanness or acquisitiveness. I recognise that want of something in the nervous workshop may cause loss of control so that the person is no longer able to accommodate himself to his special surrounding, but this alone will have to be measured by means which at present are not available. The bodily and mental relationships are very difficult to follow—take as an example what have been looked upon as alternations of neuroses. I recall the case of a young woman who was admitted into Bethlem Hospital, suffering from acute mania. This state of excitement lasted for some weeks, when suddenly she became sane but paraplegic. The paralysed state lasted for a time, to be replaced by a period of mania. It has long been recognised that if certain patients with glycosuria become insane the sugar disappears from the urine. Hay asthma may be absent during a period of mental disorder, and only recently I met with a very rare condition in which migraine passing off at middle life was replaced by definite mental disorder. These are perhaps more readily understood than the relief of mental disorder by some form of physical illness, and I am inclined to think that the scourging of the lunatic in times past might have occasionally been a help to recovery. There is certainly no doubt that in the skin we have a vast distribution of nervous tissues which may be appealed to in treatment.

It is difficult to trace the relationship between bodily cause and mental effect in such a case as this: A young officer suffered from a fall on his head and was sent home in a state of profound stupor. There was no power to rouse him. Skiagrams being taken, there was apparently some thickening over the vertex. I may here say this was not found to exist.

He was placed under an anæsthetic and a piece of bone removed. On recovering from the operation he was perfectly sane and remained so for a long time. I believe later he had some relapse, but I saw him for some time after the operation and he was sane in every way. We found no indication of any local lesion. Such experience makes one think deeply.

Waves of thought roll on and leave shore-lines and raised beaches. Most of us here have watched the tide of evolutionary thought as represented by Darwin, Herbert Spencer and Wallace rise, and though there have been some ebbs and flows, yet the advance has been fairly steady and has left a shore which will never be obliterated. Weismann and Mendel are now beating on the coast of the indefinite and they have still to establish their lines or fall back, leaving rounded pebbles of thought which may serve for future building. It is certain that one of the most important parts, not only of our special work but of the world's work, is the true consideration of heredity and its far-reaching influence. That much is transmitted from parent to child is admitted, the existence of "species" is sufficient evidence of this, the persistence of type under varying conditions. I am one who cannot accept the belief that nothing acquired by a parent can be passed on to the child. In simple things such as handwriting I see direct transmission of habit. Probably the students of neurology and psychiatry are more impressed than the students in many other branches of medicine by the very clear evidence of the passing on of nervous disorders from generation to generation. Just as it is clear that many of the most fixed racial and specific characters are transmitted, so it is equally clear that some very marked nervous abnormalities are similarly transmitted; but it is also clear that the limit of transmissibility is not known, for I am of the opinion that just as genius is rarely produced in the succeeding generations, so there are many of the nervous and mental disorders that, like genius, are not transmitted.

The general result of all recent investigation points to the occurrence of characteristics in children which were not present in the parents, but did occur in grandparents, or in collateral branches. It struck me as an interesting suggestion that some of these masked inheritances might be uncovered during dream states, and that amusing essayist Horace

Hutchinson even suggested that the dreams of flying, which are common, are reminiscent of the arboreal existence of our simian ancestors. But, joking apart, that there may in dream memories be some ancestral and inherited memory seems possible.

I wish now rather to develop the question of heredity, though I have nothing novel to add to the splendid work done in our Section by Mott. This work is growing and its results will live. We have got so far as to disregard the older faith that there was a distinct evidence of passing on of disease as such. We now are content to say that a tendency is transmitted, that a soil is provided, and that other environing conditions are the true exciting causes of disease. The special, or, I might say, the specific tendency to develop particular disordered states varies so that those prone to neuroses are not necessarily more liable to febrile and other diseases, though I have been very much struck with the tendency of members of certain neurotic families to contract any febrile disease which may be prevalent. It used to be thought that the nervously weak and unstable were unusually likely to take phthisis, and the death returns from idiot asylums and similar institutions seemed to strengthen this belief. Certain of these families seemed as if they had lost the immunity, which to a great extent saved the dwellers in cities and in populated places. They seemed to revert to the condition of those groups of isolated people which are met with in the islands of the West, who contract and suffer severely from every epidemic disease which is introduced. I do not believe in the transmission of any definite form of mental disorder, but I have met with instances in which both parent and child have had similar delusions, such, for instance, as that they had committed the unpardonable sin. In such cases similar education and surroundings occurring in the persons of a like temperament, led quite naturally to similar delusions. We accept the inheritance of bodily likeness and of the material bases of thought and feeling, likeness in the senses and their reaction to surroundings, and it is therefore not surprising to find a tendency to inheritance of certain disorders of mind in which sensory troubles are most marked and potent in producing morbid conduct. It is almost universal in my experience to find the sufferers from organised delusional insanity to belong

to insane and highly unstable nervous stock. The tendency to morbid habit, as seen in recurrent insanity, is also constantly associated with neurotic heredity. It is now almost universally recognised that long life is a family tendency, and parallel to this there is the predisposition to decay along certain lines; thus it is not uncommon to meet with families in which the arteries become diseased with age; and mental senility in one of its many forms may recur in each generation. I recall one well-known and distinguished family the members of which all lived to advanced ages, but they all presented similar evidences of decay by failing in the brains first.

My opinion, then, is that there is no doubt that in certain cases there is transmitted a tendency to nervous or to mental disorder, but that only a certain proportion of cases in asylums can be proved to have had insane relations.

I have been interested to find that recent statistics bear out what was my experience, that at least one-third of all the patients admitted into asylums have insane blood relations. A very important point which Mott has brought out more clearly has long impressed me. It is that if the neurosis is to be transmitted it probably occurs in the offspring at an earlier age than it did in the parent. This is a very practical question, for when consulted, as I constantly am, as to the future of the children of insane parentage, particularly as to marriage, I always ask as to the age at which the insanity in the parent first came on, and the age of the child about whose future I am consulted, and I always oppose any marriage till the child has reached maturity, which I place at twenty-five years of age. This is only a provisional rule, but one must have some rule to go by. The danger to the offspring of insane parentage depends, too, to some extent on the proximity of the parental insanity to the begetting or birth of the child. I have known perfectly healthy children born some years before an attack of insanity to be followed by neurotic children born after the insanity of the parent, and, what is more, I have known healthy children born before an attack of insanity, while children born near the time of the attack have been unstable or weak-minded, and I have known, after a healthy interval of some years, healthy children again to be born. What was transmitted or what was withheld is unknown.

In considering heredity, too much stress must not be laid on

the existence of some forms of mental disorder in the family. As I have already said, insanity, like genius, may be an accident. It is certain that some families in which every form of neurosis has been represented have succeeded in breeding out of the tendency. I recall one instance in which various forms of mental disorder were present in one generation, but in the next, by suitable mating, nothing really morbid was seen. It was interesting to see in some members of such a family eccentricities or tricks of manner appearing, so that I have seen insanity in one generation followed by musical or other aptitude in the next, while in the third generation, or in some members of the second family beside the normal members, were some with tricks such as the facility, untrained, of mirror writing. We must not believe too much in what has been well called the tyranny of the organism. That conditions have very much to do with the production of attacks of insanity I have no doubt. One of my favourite similes in teaching on the question of heredity was to compare it with the mycelium of the mushroom. This spreads far and wide, and is not recognised till suitable conditions lead to what we call the mushroom which comes to the surface. So the neurotic inheritance spreads far and wide and is deeply seated, but the occasion for its development may be wanting.

I cannot pass over the very important question (which runs some danger of becoming popular) of the position of the defectives and our duty to them. Several of you attended the Congress of Eugenics, and there was no doubt about the earnestness with which the subject was considered. In this congress the question of the transmission of mental weakness was very fully considered, and while I am as convinced as anyone can be that in many cases the feeble-minded tend to reproduce the defectives, yet some of the members of the congress would include almost everything which was eccentric, and genius and folly, therefore, would both be isolated by them. The principles of eugenics must appeal to us all, but we must not forget what Professor James so forcibly pointed out, that attraction means something different when referring to the magnet and steel filing than when Romeo and Juliet are concerned. In the latter instance the attraction is not a mechanical compulsion.

We have to look upon the defectives as being human and

being very near most of us ; there is no specific difference, only variation. And it is therefore not hard to explain why they tend to reproduce their like. It is fully recognised that it is rarely that great peculiarities in a parent are transmitted, but the slighter ones are. The social defective or the weakling with want of control is parallel to undeveloped man. This fact of the similarity of offspring to parent in defectives must have great weight in our treatment of such persons. Some, like many savages, can be trained but hardly educated.

Before leaving the subject of heredity, having expressed my opinion and given my experience, I am still in great difficulty as to what may be transmitted and what can be explained as simple reaction to surroundings of a mere mechanical nature. Reflex arrangements are established and passed on, and it is certain that whether we consider instincts as survivals of past acquirements or stages of the evolutionary process, they are passed on in the most complicated way. That a young water-fowl should be able to swim within a few minutes of emerging from its egg (and this I have seen) is comprehensible, but that a beetle or a butterfly should do what other beetles or butterflies have done, though they have no immediate parentage, is difficult to follow. I may give examples. In one case a medical friend interested in entomology had some eggs of a rare moth which he hatched in cases, and the caterpillars in due course passed into the stage of pupa ; in one of the cases the branches of a tree had been placed for their accommodation and the pupa resembled in colour the bark of the tree. In another case there were bamboo sticks, and the pupæ in that case resembled in colour the bamboo. This certainly looks like a simple reflex power of adaptation, but what can one say of the following (!) : The Yucca moth emerges from its chrysalis case just when the large flowers of the Yucca open, each only for a single night. From the pollen of one of these flowers the moth collects and kneads a little pellet which she holds beneath her head with enlarged bristly palps. Thus laden, she flies off to another open flower. She pierces with her ovipositor the tissue of the pistil, lays her eggs among the ovules, then darting to the top of the pistil she stuffs the fertilising pollen into the stigma. It has been proved that unless this moth visits the Yucca there are no ripened seeds. The grub consumes about one-fifth of the fertilised seeds, leaving abundance

for the future of the plants. This process has been slowly evolved ; one hardly dare in time compute the ages which must have passed in the production of this perfect arrangement. Something has been transmitted, we have to admit, or else you must accept a still more difficult solution—that each of the independent acts is a mechanical reflex to its surroundings. If, then, we accept such possible hereditary transmission, I think we must be very careful in dogmatising on what may be reproduced in the offspring from the parents.

Next to heredity alcohol has been looked upon as a potent cause of insanity, and there is no doubt that a good many patients are yearly admitted to asylums in whom excess has played a part in producing the disorder ; but, again referring to Mott's work, there can be now no longer any doubt that certain people suffer in the viscera, while others suffer in their heads. It is interesting to note that in the recently published report of the Irish Commissioners in Lunacy they say the general conclusion of their investigations is that alcohol possesses comparatively small importance as a cause of insanity in Ireland.

I have referred to the waves of thought and their remains or effects. Now we are on what might be called the chemical wave. Cells have played their part, and bacteria are having a distinguished career, but the results of cells and bacteria are, after all, supposed to be chemical products.

I admit that the whole matter of blood and its various possible constituents is too much for me. I recall the happier days when working among the earliest of his pupils with Professor Klein some four or five constituents were allowed to the blood. Now, as on every hand we have theoretical additions, I have to exercise a faith in them, while I ask *you* to extend faith and imagination along other lines. Thus, dreaming on mountain slopes, I wondered what the internal secretion of the brain might be. The discoveries on the potency of these secretions are very striking. It appears as if every organ had a twofold relationship: first with the greater world, second with the smaller one of self. The central nervous system and its nerves are in wide relationship with the outer world, and yet there is the undefined and not understood Consciousness which may be the result of the internal secretion. It pleased me to think of feeling and consciousness as the by-products of nervous

action, and I could not help seeing in some instances of morbid mental states evidence that the idea was not altogether wild.

One of the dangers of the present time is that in consequence of physical discoveries, what have been looked upon as certainties no longer hold that position. I have already spoken incidentally of this, but now I have to say that what twenty years ago or less would have been laughed at is accepted as at least worthy of study. Though telepathy and spiritualism are outside our province, unless they are considered from the morbid side, yet hypnotism and suggestion and psychical analysis have taken very important positions, and are doubtless associated with the rapidly developing science of experimental psychology. We find in the last, the comparatively new science, most attractive work, and though I find the physician of to-day prone to ask, *Cui bono?* I can only reply, we must "wait and see"; that we are prepared to follow truth where it leads, and that a dim light is better than none in such darkness as the realms of life and consciousness.

And now, Gentlemen, having rambled over a very wide field, I feel that I must leave it for you to cultivate. It is not forest or virgin soil, but it is productive, and earnest work will have its reward.

In concluding I would say that, like Moses, I view a land of promise which I shall not live long enough to enter, yet, like him, I watch the battle, and as when Moses's hands were supported by Aaron and Hur, Israel prevailed, so I feel that, supported by my two Vice-Presidents, my feeble efforts will be certain of some success.

(<sup>1</sup>) Kerner's *Natural History of Plants*.

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### *Remarks on Death Certification and Registration.*

By SIDNEY COUPLAND, M.D., F.R.C.P., Commissioner in Lunacy.

I FEEL that some apology is needed from me for venturing to introduce for your consideration a subject which, however important from the standpoint of the national health, bears but little relation to the deeper scientific problems usually discussed at the meetings of this Association. I can only urge in excuse for my temerity the desirability of calling attention to the



changes recently introduced in the registration of deaths with the object of obtaining greater uniformity in tabulation and consequently greater accuracy in vital statistics. The matter concerns every registered medical practitioner, whose statutory duty it is to furnish the information on which the Registrar-General builds up his instructive tables, and all must appreciate the endeavour to secure the object referred to. In asylums for the insane, where the death-rate is relatively very high, there is ample opportunity for supplying precise information, especially as in three out of four cases the cause of death is verified by *post-mortem* examination, thereby enhancing the reliability of the returns.

To Dr. William Farr—rightly regarded as the founder of vital statistics—in his capacity of Superintendent of Statistics at the General Register Office, established in 1838, fell the task of compiling a list of fatal diseases, for the purpose of tabulating the deaths annually registered. In the first of the long series of letters which he annually addressed to the Registrar-General during his forty years' tenure of office, he discusses the question of the best form of nomenclature and classification applicable to the accurate registration of the causes of death, and gives reasons for the list he had framed. Its terminology reads strangely now. Some of the "diseases" have disappeared from the nosology; several not there recorded now take an important place; whilst many terms, designating symptoms rather than morbid conditions, are only to be found in the lengthy catalogue of "undesirable terms," compiled by the present holder of Dr. Farr's office, Dr. Stevenson, a list which should be at the service of everyone who signs a death certificate. In Farr's list there were three main divisions: (1) Epidemic, endemic, and contagious diseases. (2) Sporadic diseases, subdivided according to their anatomical sites. (3) Deaths by violence. The final group in the second division under the heading, "Diseases of uncertain site," is a strange medley, embracing *inter alia* hæmorrhage, dropsy, gangrene, cancer, gout, intemperance, and atrophy. Three years later Dr. Farr thoroughly revised this list, and expounded his views on a statistical nosology in a valuable essay. The classification he then arrived at may be said to have formed, to some extent, the basis of the first edition of the Nomenclature of Diseases in 1869, issued by the Royal College of Physicians,

which has rendered a great service by this publication and its periodical revision in order to keep abreast of advancing knowledge. In 1856, as the outcome of a statistical congress at Geneva, Dr. Farr, in conjunction with Dr. Marc D'Espine, prepared a report upon the nomenclature and statistical classification of diseases, with the object, if possible, of establishing an international system, a scheme which is now at length about to be realised. The plan propounded in that report was introduced in the abstract of the causes of death for 1858, and continued there until 1880, being in some years amplified by a supplementary list of diseases of lesser prevalence. After 1869 Dr. Farr also published an additional table in which the death causes were classified on the basis of the College Nomenclature.

Dr. W. Ogle, on succeeding to the office vacated by Dr. Farr, introduced a new plan of classification of the causes of death, which was first used for 1881. Whilst admitting that the college nomenclature would be the natural one to adopt, as it was indeed in general outline, he pointed out that whereas the aims of the college in framing its lists were mainly pathological, those of the General Register Office should be as far as possible ætiological. Moreover, the need for continuity precluded the adoption of too marked a change in details.

After twenty years the list of causes of death underwent another revision, and from 1901 to 1910 the list employed has been that introduced by Dr. J. Tatham, who dispensed with the artificial classes into which general diseases had hitherto been arranged. It is interesting to note that Dr. Ogle, writing in 1883, says: "Allowance has to be made for the greater precision in diagnosis which the advance of medical science brings about, and which causes a constant increase in the number of deaths ascribed to definite causes at the expense of deaths of which the causes are indefinitely described. Under these circumstances it may be laid down as a general rule that the serial comparison of mortality from any specified cause, in successive years, is but of little value, unless the particular disease concerning which the investigation is made be some well-marked form and such as can be readily recognised by the ordinary practitioner, or unless the inquiry relate, not to some one special disease, but to some large natural group of diseases taken together, such as diseases of the nervous system, or

diseases of the respiratory organs." (*Forty-fourth Report of Registrar-General*, p. xix.)

Dr. Tatham, in 1903, on the other hand, writes : " It must be borne in mind, however, that what is essentially requisite in statistical tables intended for public health purposes is that they should furnish comparable details for current and past years—not concerning arbitrary groups of disease, but concerning individual diseases considered as causes of death, for by such means it is that the actual influence of sanitary effort on human health and longevity may be more accurately ascertained and measured." . . . " The classified list of diseases hitherto in use having thus been replaced by a simple enumeration of individual causes of death, it is confidently hoped that any modifications which may hereafter be required in the national records of mortality will not seriously affect the comparability of facts in a series of years. From the nature of the case students of vital statistics will assuredly require to classify causes of death according to the special requirements of a given investigation." (*Sixty-fourth Report of Registrar-General*, p. xxxvii.)

The modifications introduced by Dr. Tatham included the transference of certain affections which modern inquiry had proved to be due to microbic agencies from the class of Local to that of General diseases. Such are pneumonia, empyema, infective endocarditis, tetanus. For the first time, too, in the General Register of Deaths, those due to general paralysis were separated from the general heading of " Insanity." Apoplexy and cerebral hæmorrhage were transferred from the category of diseases of the nervous system to that of diseases of blood-vessels. Appendicitis was given a place apart from enteritis, hæmophilia detached from purpura, diarrhœa from dysentery, and sarcoma separated from carcinoma, the term " cancer " being retained for all malignant disease not so distinguished.

The latest step in revision of our official statistical nosology has been taken in order to bring the tabulation of death causes at the General Register Office into harmony with those adopted by other governments. It consists in the acceptance for this country of a list of causes of death drawn up by an International Commission, as revised at its second meeting in Paris in 1909. This " international " list is, the Registrar-

General informs us in his last published report, to be used for the forthcoming tables for 1911, and will coincide with a useful reform in regard to the areas of registration. With the latter we here have no such direct concern as with the international list, of which detailed particulars are given in a manual prepared by Dr. Stevenson. The manual also contains valuable comments on the certification of deaths, with an account of the methods adopted at the General Register Office, to ensure uniformity in registration. The list contains 189 headings arranged in fourteen groups, but, in order to "maintain comparability with past English records," as many as sixty-five of the principal headings have been subdivided into 188 divisions, so that the complete list contains 312 "assigned causes" as compared with 193 in the list which has been used during the past decade. A table is given in the "manual" which shows how the diseases named in the previous list have been distributed and expanded in the new list. Convenience in tabulation for registration purposes doubtless explains many of these differences, emphasising the distinction between a "scientific" and a "statistical" nosology. I must refer you to the manual itself for details, merely noting that one principal heading is "General paralysis of the insane," and the next "Other forms of mental alienation," whilst idiocy, imbecility and cretinism fall under "Other diseases of the nervous system," and "Senile dementia" and "Senile decay" form the two sub-groups of the division—"Old age." The manual, with carefully compiled enumeration of the various morbid conditions and their synonyms falling under each of the scheduled "causes" and its exhaustive index, should be invaluable to anyone who has to prepare from mortality records a list of the causes of death in accordance with the scheme now in force at Somerset House.

Convinced of the utility of adopting for institutions for the insane a synopsis of death-causes in accordance with the tables in the Registrar-General's Annual Report, it is intended that the new departure in general registration shall be followed in our lunacy statistics. This will entail a re-casting of our collated returns for the year 1911, already published, which can be readily effected by reference to the comparative lists given in the manual, whilst an extended form of the schedule issued to the medical officers of institutions for the return of the

deaths for the current year is being drawn up on the lines of the international list. In this schedule certain diseases named in the list will be omitted as practically never occurring amongst the insane, and a few additional ones specified, their comparative frequency in association with insanity seeming to justify their separate mention. A draft copy of this schedule is now before you, and any suggestions for its improvement will be welcomed.

The attention of the Commissioners in Lunacy having been drawn by the Registrar-General to the need (for registration purposes), in the cases of persons dying in public institutions, of recording the places of residence prior to their admission, it became necessary to alter Form 21 of the Rules of the Commissioners accordingly, for which Parliamentary sanction is necessary. We have deemed it desirable to take advantage of this opportunity to also revise the form in its essential particular. This, as will be seen from the draft which has been circulated, consists in bringing the notice of the cause of death into harmony with that of the ordinary death certificate, the form and wording of which have been simply transferred to the notice. It entails the differentiation of the primary (or principal) and secondary (or contributory) cause, the former being, it is understood, that which is selected for the purposes of the Registrar-General's List of Causes of Death as well as for the table in the Annual Report of the Commissioners in Lunacy. This distinction appeared, I believe, on the first forms of certificate issued in 1845, and although the terms were not defined, one learns from the interesting account given by Dr. Stevenson in the manual that the practitioner was instructed to "write the causes of death in the order of their appearance, and not in the presumed order of their importance," an instruction which was retained until as recently as 1902. A too strict adherence to this interpretation of the terms—not always followed, however—came to entail much work at the General Register Office to secure uniformity, and to determine which of the causes assigned in the certificate could be reasonably regarded as the most important factor. With this object a code of rules was drawn up to govern the selection of one out of two assigned causes. A like code was compiled by the International Commission in 1903. Both of these sets of rules are now published for the first time in the manual, and

will be found very instructive as well as helpful in certification. No doubt eventually international uniformity of practice in this important detail of registration will be attained, just as there is now in the matter of nomenclature. So far as we are individually concerned as writers of death certificates we must not interpret the term "primary" as indicative of the disease which appeared first in time, unless, as indeed not seldom occurs, it also happens to be that which was the chief cause of death. Dr. Stevenson tells us that there has been a growing tendency amongst practitioners to give the more correct rendering of the term as "principal" rather than primary in point of time. The wider the recognition of this the less the necessity for revision of certificates at the central office. As assisting to this end the certifying practitioner has now before him an authoritative definition of the terms. The wording of this definition, settled after consultation with the Royal College of Physicians, is as follows: "By 'primary cause of death' is meant (in the case of deaths from disease) the disease present at the time of death, which initiated the train of events leading thereto, and not a mere secondary, contributory or immediate cause, or a terminal condition or mode of death." These words are inserted in the death certificate, where it is also pointed out that a mere terminal state is not to be entered as a secondary cause.

Clear and explicit as this definition is it requires to be liberally interpreted. Thus in a foot-note to the passage in the "Suggestions to Medical Practitioners," from which I have quoted, it is rightly held that acute specific diseases, if of recent occurrence, are to be considered the primary cause of death, even though the actual disease, as tested by power of infection, be no longer present at the time of death—*e.g.*, measles (primary), five weeks; broncho-pneumonia (secondary), ten days. On the other hand, when a long interval has elapsed between the acute specific and the fatal effects of its sequela, the disease which really initiated the train of events leading to death will cease to be regarded as the primary cause, and may even come to be ignored as secondary, being supplanted by another link in a long chain. An adult succumbs to the effects of cardiac dilatation, secondary to mitral disease which originated in endocarditis acquired in an attack of acute rheumatism or scarlet fever in early life. Or, similarly, a man

dies from an abscess of the brain or from meningitis originating in mastoid disease directly connected with the otitis which followed on the scarlet fever he suffered in youth. For purposes of registration I presume the selection of the primary cause would fall in the one case on "valvular disease of the heart," and in the other on "mastoid disease"; but the pathological importance of the secondary causes cannot be disregarded. Similarly in more chronic affections, to select as the primary cause the arterial sclerosis upon which the eventual death from chronic Bright's disease or cerebral hæmorrhage depends may be according to rule, as it is in order of time, but would effectually preclude the acquisition of precise information upon important morbid conditions. The aim of registration being to ensure uniformity of record in order to enable accurate comparisons to be made between the mortality in different countries and at different periods in the same country, the more closely one follows the authorised definitions the more likely is such accuracy to be attained.

The very fact that there is, and cannot fail to be, differences of opinion as to the precise significance attached to the term "primary" in estimating the relative importance of one or other associated morbid states in causing death makes it very necessary not to lose sight of those conditions which are noted as "secondary," since they find no place in statistics which deal with one cause only. The record of secondary causes is as valuable as that of the primary; and Dr. Stevenson states that it is intended to publish from time to time subsidiary tables to include both groups, where the secondary cause is of sufficient importance to warrant its tabulation. In our own more limited statistics it is proposed to ask for a record in another column of the total number of instances in which a disease is recorded as secondary, a plan already adopted in the tables framed by this Association. In that way one may hope to arrive at a truer conception of the relative frequency of each morbid condition that shares in the fatal issue than is possible when only one cause is selected for comparison. We shall still have means for comparing the number of deaths from principal causes at different ages; but this supplemental information will enable us to learn something of the incidence of disease at all ages.

In Dr. Farr's original table of fatal diseases, the headings

occur of "Insanity" (monomania, dementia and idiocy), and the abstract of the causes of death registered in England from July 1st to December 31st, 1837, the period covered by the First Annual Report, shows that the deaths of 147 males and 138 females were ascribed to "insanity." A note supplies the information that a case of insanity in a female *æt.* 48 was caused by a polypus in the womb. The table in the second report dealing with the deaths in 1838 assigns the deaths of 178 males and 189 females to this condition, there being, as stated in a note included under the same head, "four deaths from grief, one from passion, and ten from fright." "Insanity" has remained in the list of assigned causes of death to the present day, and the last issued report gives for 1910 a total of 940 male and 1151 female deaths from this cause, as well as 48 deaths from puerperal mania and 2213 from general paralysis of the insane, a condition which was included under the heading "Insanity" until 1901. It is not easy to explain the occurrence of so many certificates from which it could be possible to select "insanity" as the principal cause of death in the amount shown by these official figures. For in the same year (1910) in all institutions for the insane the total ascribed to "exhaustion" from mania and melancholia was 186, or about 9 per cent. of the larger figure: whilst the yearly average of such deaths for the seven years 1904-10 was 210, and that for the whole country 2111, or ten times the former. It is further noteworthy that whereas the yearly figures in the former group show a tendency to dwindle, possibly owing to the ascertainment of some definite physical disease to which the death may reasonably be assigned, those in the latter rise mostly from year to year. During the same seven years the total registered deaths from puerperal mania was 413, the number in asylums being twenty-five. On the other hand, there were, in 1910, in asylums, 1691 deaths from general paralysis, which may be compared with the total return for the country of 2213, a difference far more explicable than the "insanity" figures. It is improbable that every one of the 1,905 deaths assigned to non-puerperal insanity in 1910 in England and Wales, over and above those so assigned amongst asylum inmates, should have referred to persons outside these institutions. Of that number I find that 56 *per cent.* were of the ages sixty-five and upwards, and even if we were to subtract



all the asylum deaths returned as from "old age" in these periods, on the assumption that such deaths in such environment were to be interpreted as "senile dementia" (as many doubtless were), there would still remain 250 to be accounted for. Perhaps these would be furnished from among workhouse inmates. But where are we to find the 44 *per cent.* who were below sixty-five years of age? Dr. Farr, who, as I have said, placed "insanity" in his list of "fatal diseases" (not unwarrantably, since the term comprised general paralysis) wrote in his first report: "The insane who die in lunatic asylums have often been registered improperly under secondary diseases such as apoplexy or diarrhœa." If we are unable to endorse this dictum it is because in the majority of the insane it is hardly possible to attribute death to insanity *per se*.

This is a point which I hope will be taken up in discussion, namely, to what extent may death be primarily ascribed to the mental disorder. I say "primarily," because in a sense I presume we may regard insanity as a contributory cause. Mind and body are too firmly linked to permit of doubt as to their interaction in disease, and the notoriously high death-rate of the insane from certain physical diseases may, when not obviously due to environment, reasonably be held to indicate amongst them some undue liability to bodily affections, or, at any rate, an inherent lack of vital resistance possibly connected with, if not dependent on, the "insane diathesis." One is bound to admit that there are cases of recent mania or melancholia, and some rarer conditions of insanity, where death occurs from what, from lack of knowledge, can only be described as "exhaustion," "heart-failure," and the like, when a *post-mortem* examination has failed to reveal the presence of any well-defined complication, such as pneumonia, that actually determined the result. But for the rest, the great majority,—always excluding general paralysis,—the insanity, if considered to be a factor at all, can only be a contributory and mostly a remote contributory cause. A few years ago Dr. Tatham, then superintendent of statistics at the General Register Office, expressed a desire that each notice of death should state the type of mental disorder from which the patient was suffering, and to a certain extent that information was added. It has not been thought worth while to introduce a special heading for this purpose in the newly revised Form 21; but if, in the

yearly return, such a summary were supplied, it might be utilised for the compilation of a table to contrast with that which deals with the forms of insanity on admission to care. It would be certain to show a vast preponderance of dementia, and it would be interesting to learn whether much value could be assigned to it.

As to general paralysis of the insane, which figures so largely as a principal cause of death in our returns, accounting for more than 17 *per cent.* of the deaths in asylums, it is to be noted that although its return as the primary cause of death may mostly be justified, according to the definition of the latter, it does clearly sometimes rank as secondary, when complicated by dysentery, or phthisis, acute pneumonia or other intercurrent diseases. The same applies to epilepsy and diseases of brain and cord, serving to emphasise the importance of tabulation of secondary as well as of primary causes, if we wish for accurate knowledge of the prevalence of such affections.

I had hoped to have entered somewhat fully into the subject of the comparative mortality of the insane and the general population, which has been the main object in having our returns made on the same lines as those in vogue at Somerset House. But lack of time to do full justice to the subject prevents me from doing little else now than touching its fringe. However, as the matter was treated at some length in the *Sixty-fifth Report of the Commissioners in Lunacy*, I have less compunction in limiting the scope of my present remarks. I would point out, however, that no small part of the exceptionally high mortality in lunatic asylums is to be attributed to the enfeebled and disordered physical state of many of the patients on admission, whose insanity is often more or less directly connected with their bodily ill-health. The high death-rates which obtain at every age are therefore by no means necessarily connected with asylum conditions of life, except in so far as these conduce to the spread of contagious disorders. Indeed, the longevity of inmates is a standing testimony against such an hypothesis, and there is no doubt that they are protected from certain risks to health and life to which the rest of us are exposed. A study of asylum statistics which I made a few years ago enables me to affirm that for every 100 persons admitted, 10 die in their first year of residence, and 8 in their

second year, and this out of a total of 36 who die within a period of residence extending over twenty years.

*Diseases of the nervous system* necessarily bulk largely in the list of death causes amongst the insane, owing chiefly to the number who are the subjects of general paralysis and epilepsy. In 1910 there were in institutions for the insane as many as 291 such deaths out of a total of 1,000 for all causes at ages 15 years and upwards, whilst in the rest of England and Wales the proportion was only 48 per 1,000 in the same age-period.

Next in importance as contributing to an asylum death-rate is *pulmonary tuberculosis*, which (for the same ages) in that year accounted for 140 out of 1,000 deaths, or 138 if the means of the five years, 1907-11, be taken. This contrasts with a proportion of 104 per 1,000 in the rest of the community. On the other hand, low down on the list of fatal diseases amongst insane patients is *cancer*; for dealing with persons at ages 25 and upwards we find the proportion of deaths from malignant disease in 1910 in institutions was 33 per 1,000, instead of 114 for the rest of the population.

When, however, we compare the incidence of these two diseases—phthisis and cancer—on the estimated numbers *living* in the two groups, we find in the one case a still greater disparity, and in the other an equally striking approximation of the respective rates. Thus, per 10,000 living, the asylum deaths from phthisis were 127, those of persons outside asylums only 13; but in regard to cancer the like ratio for the former was 29, for the latter 20, which would seem to show that in spite of its relative infrequency as a cause of death, the incidence of cancer is not really below the rate in the general community. In other words, if the phthisis death-rate had been the same amongst the insane as it was in the population at large the number of deaths from this cause would have been 144 instead of 1,359, whilst on the same hypothesis the cancer deaths should have been 275 instead of 284—the yearly average of the five years, 1907-11.

Cancer, then, is clearly not favoured in its occurrence by agencies similar or allied to those which favour tuberculosis; and whilst seeking an explanation for the proclivity of the insane to the latter affection, we ought also to endeavour to ascertain the reason why cancer is not more prevalent than it apparently is.

There is need for circumspection in statistically comparing two communities of such unequal numerical strength. The insane in institutions on December 31st, 1910, numbered 106,736 at ages 15 and upwards, and the estimated number of persons (outside asylums) living at those ages in the middle of the same year was 24,084,078. Any conclusions drawn from comparisons between the two groups must therefore be guarded and undogmatic, as pointing the direction for inquiry rather than accepting the facts elicited as being the ultimate truth.

#### NOTE.

It may be useful to record by way of addendum to the foregoing paper the statistical data on which certain statements therein were founded.

1.—*Comparison of statistics relating to deaths assigned to certain forms of insanity given (a) in the Abstract of Causes of Death in England and Wales published in the Sixty-seventh to Seventy-third Annual Reports of the Registrar-General, and (b) in the table dealing with the deaths in institutions for the insane given in the Fifty-ninth to Sixty-fifth Reports of the Commissioners in Lunacy.*

Year.	England and Wales.								Institutions for insane.							
	General paralysis.			Insanity (not puerperal).			Puerperal mania.		General paralysis.			Exhaustion from mania and melancholia.			Puerperal mania.	
	M.	F.	T.	M.	F.	T.	F.		M.	F.	T.	M.	F.	T.	F.	
1904	1802	578	2380	866	1060	1926	62		1311	314	1625	89	154	243	5	
1905	1738	549	2287	888	1181	2069	66		1313	331	1644	106	139	245	5	
1906	1772	568	2340	952	1200	2152	68		1294	324	1618	94	145	239	5	
1907	1775	557	2332	960	1249	2209	70		1305	363	1668	80	135	215	6	
1908	1713	504	2217	941	1227	2168	57		1328	307	1635	72	111	183	1	
1909	1817	546	2363	995	1176	2171	42		1361	320	1681	74	87	161	—	
1910	1723	490	2213	940	1151	2091	48		1375	316	1691	85	101	186	3	

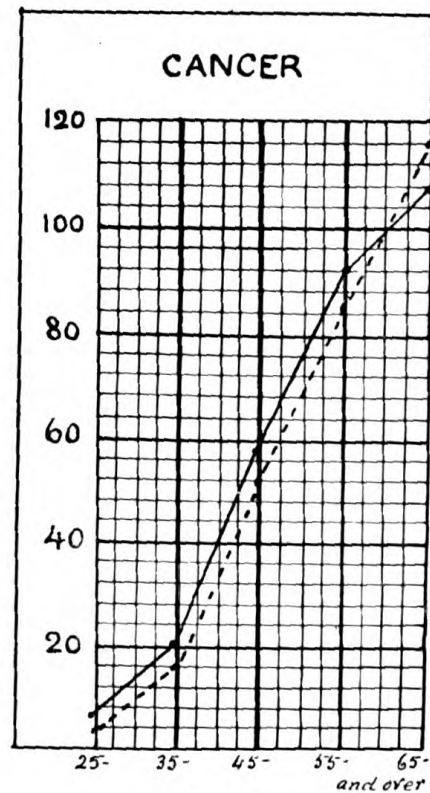
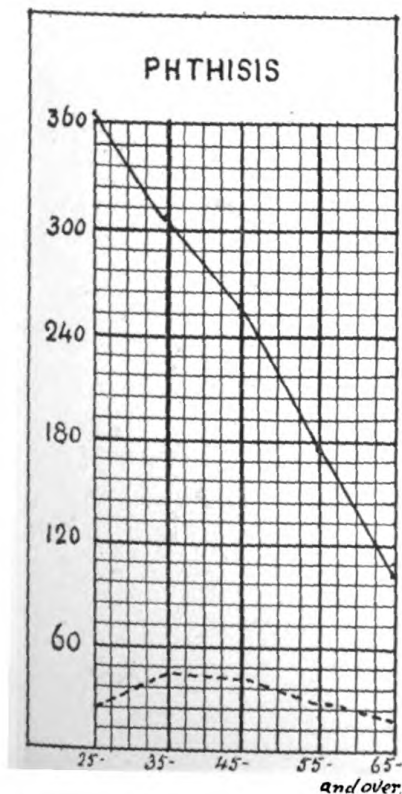
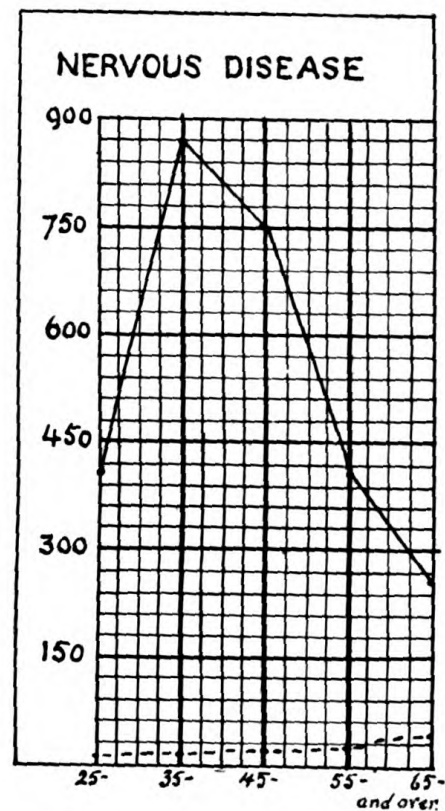
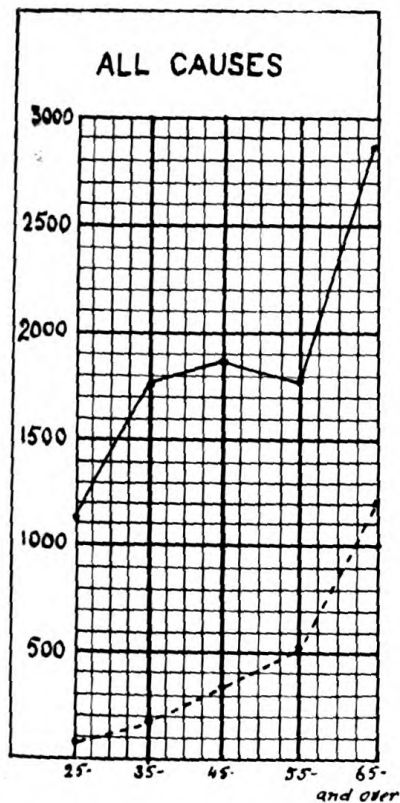
II.—*Comparison of deaths occurring in institutions for the insane with those in the rest of population of England and Wales. The figures for the population of the former are those returned on December 31st, 1910; of the latter the estimate for the middle of the year 1910. The number of deaths in the institutions is the yearly average for the five years 1907-11; those given for the rest of the community are based on the returns for 1910. In each series the figures are limited to fifteen years and upwards, and in the case of "Cancer" to twenty-five years and upwards.*

*Population.*

At ages	England and Wales (excluding asylums)			Institutions for insane.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
15-	1,768,113	1,801,857	3,569,970	1,362	1,008	2,370
20-	1,618,403	1,811,104	3,429,597	2,605	2,386	4,991
25-	2,727,347	3,039,054	5,766,401	9,058	8,467	17,525
35-	2,114,871	2,258,632	4,373,503	11,708	12,318	24,026
45-	1,525,804	1,643,484	3,169,288	11,069	13,447	24,516
55-	991,138	1,128,251	2,119,389	8,280	10,826	19,106
65 and upwards	722,180	933,840	1,656,020	5,494	8,708	14,202
	11,467,856	12,616,222	24,084,078	49,576	57,160	106,736

*Deaths—all Causes.*

15-	4442	4317	8759	82	62	144
20-	5452	5061	10513	155	130	285
25-	12616	12258	24874	613	517	1130
35-	17115	15415	32530	1024	728	1752
45-	23225	19164	42389	1000	863	1863
55-	30574	25929	56503	922	877	1799
65 and upwards	65158	74969	140127	1311	1556	2867
	158582	157113	315695	5107	4733	9840



Number of deaths at different age-periods, from twenty-five upwards, in institutions for insane. N.B.—The continuous curve indicates actual numbers—yearly average on five years, 1907-11; the broken curve—hypothetical numbers, if the death-rates at age-periods had been identical with those obtaining in the rest of the population.



*Deaths—Diseases of Nervous System.*

15-	263	228	496	29	16	45
20-	229	237	466	50	32	82
25-	425	438	863	272	141	413
35-	734	743	1477	649	221	870
45-	1075	870	1995	530	221	751
55-	1355	1086	2441	259	154	413
65 and upwards	2607	2495	5102	129	136	265
	6693	6097	12790	1918	921	2839

*Deaths—Phthisis (Pulmonary Tuberculosis).*

15-	1080	1532	2612	25	20	45
20-	1977	1801	3778	59	43	107
25-	4432	3800	8232	183	182	365
35-	4483	3016	7499	137	172	309
45-	3657	1816	5473	115	142	257
55-	2172	1075	3247	87	89	176
65 and upwards	925	596	1521	50	50	100
	18726	13636	32362	656	703	1359

*Deaths—Cancer.*

25-	335	539	874	2	4	6
35-	994	2017	3011	7	13	20
45-	2757	4037	6794	21	37	58
55-	4336	5251	9587	41	51	92
65 and upwards	6022	7515	13537	45	63	108
	14444	19359	33803	116	168	284

*Proportion per 1,000 Deaths from all Causes.**Nervous Diseases.*

15-	60	53	57	354	258	313
20-	42	47	44	323	246	258
25-	34	36	35	444	273	306
35-	43	48	45	634	304	497
45-	46	45	47	530	256	403
55-	44	42	43	251	176	230
65 and upwards	40	32	36	98	87	92
	42	38	34	336	195	288



*Phthisis.*

15-	243	353	298	305	323	313
20-	303	356	359	380	369	375
25-	351	310	331	299	352	323
35-	262	196	231	134	236	176
45-	158	95	129	115	165	138
55-	71	42	57	94	101	98
65 and upwards	14	8	11	38	32	35
	118	87	103	128	148	138

*Cancer.*

25-	27	44	34	3	7	5
35-	59	131	93	7	18	12
45-	119	210	161	21	45	32
55-	141	203	170	44	63	53
65 and upwards	92	100	97	35	43	39
	91	123	107	24	38	31

*Mortality per 10,000 Living—all Causes.*

15-	25	24	24	602	615	608
20-	34	28	31	595	545	571
25-	46	40	43	680	611	645
35-	81	68	74	875	591	729
45-	152	117	134	903	642	760
55-	309	230	267	1114	810	942
65 and upwards	902	803	846	2386	1787	2019
	138	124	131	1030	828	922

*Nervous Diseases.*

15-	2	1	1	213	159	189
20-	1	1	1	192	134	164
25-	2	1	2	300	167	236
35-	3	3	3	554	179	362
45-	7	5	6	479	164	306
55-	14	10	12	313	142	216
65 and upwards	36	27	31	235	157	187
	6	5	5	347	161	266

*Phthisis.*

15-	6	9	7	184	198	190
20-	12	10	11	227	201	214
25-	16	12	14	202	215	208
35-	21	13	17	117	140	129
45-	24	11	17	104	106	105
55-	22	9	15	105	82	92
65 and upwards	13	6	10	91	57	70
	16	11	13	132	123	127

*Cancer.*

25-	1	2	2	2	5	3
35-	5	9	7	6	11	8
45-	18	25	21	19	28	24
55-	44	47	45	50	47	48
65 and upwards	83	81	82	82	72	76
	18	22	20	25	31	29

III.—The above figures permit of a contrast between the actual number of deaths occurring in institutions for the insane at different periods of life, and the hypothetical number which would be recorded were the mortality rates identical with those obtaining in the general population. Such a comparison is made in the subjoined table for persons at ages twenty-five years and upwards, the actual numbers being given in column (a), the hypothetical in column (b). See annexed diagrams.

At ages.	All causes.		Nervous diseases.		Phthisis.		Cancer.	
	(a).	(b).	(a).	(b).	(a).	(b).	(a).	(b).
25-	1130	75	413	3	365	25	6	3
35-	1752	178	870	7	309	41	20	16
45-	1863	328	751	15	257	42	58	53
55-	1799	510	413	23	176	29	92	86
65 and upwards	2867	1201	265	44	100	14	108	116
Total	9411	2292	2712	92	1207	151	284	275

## DISCUSSION.

At the Quarterly Meeting held in London on November 26th, 1912.

The PRESIDENT stated that he was sure he was interpreting the views of members when he said they were very much indebted to Dr. Coupland for having come to the meeting to discuss a subject which was of such great importance to them. His presence there, as representing the Commissioners in Lunacy, exhibited that spirit of consideration for the views of members of the Association which had done more than anything else—and was certain to do more in the future—to bring about harmonious and smooth working in the task which both the Commissioners and members had in hand and had at heart. He thought that the author had shown a very cogent reason indeed why such a change should be brought about in the form of return, the main suggestion being that the causes of death should be returned under the headings "primary" and "secondary." He believed many had in the past made their returns very much on that basis. There were two other points with regard to this proposed draft. One was, that, at present, asylum authorities were asked to return the name of the brain disease from which the patient suffered. As a matter of fact, he believed the name of the brain disease was not given, but rather the form of mental disorder. They hesitated to go beyond that, and definitely put down, for instance, the name of the brain disease which characterised dementia præcox. He suggested that if there was to be a re-casted form, it would be well to provide for a return of the mental disorder from which the patient suffered. The second point was, that in the form required to be sent to the Registrar of Deaths the words had been introduced, "I hereby certify the particulars contained in the above statement to be true," and he suggested it would be well to have those words on every form sent in, and not only on the form sent to the Registrar of Deaths. Those were points which occurred to him, and he hoped the meeting would accept Dr. Coupland's invitation to consider and discuss the various matters raised, bringing forward any views entertained so that the opinions of members might be ascertained.

Dr. C. A. MERCIER remarked that the subject which Dr. Coupland had brought forward for discussion was an exceedingly difficult one—much more difficult than appeared on the face of it. And it was so for the reason that no two people were agreed upon what was meant by a cause. He recently had occasion to discuss the matter in one of the magazines, in opposition to Professor Karl Pearson, who denied that there were such things as cause or effect in anything. In that, however, he (the speaker) did not agree. He believed there was such a sequence as cause and effect, or, possibly, simultaneous occurrence. But he took considerable objection to the terms used in this schedule now brought forward, *viz.*, the terms "primary" and "secondary," "principal" and "contributory." Of course "primary" and "secondary" were intended to be used, as Dr. Coupland pointed out, in their proper signification, namely, as first in importance and secondary in importance respectively. He remembered another controversy which he lately had because somebody found fault with him for using the term "primarily" instead of "firstly." By "primarily" he meant first in importance; first meant first in order of time. Then, in the case in hand, one had to ask, "Important in what respect?" And again, in regard to "primarily" and "contributory," "In what respect?" Therein lay the whole difficulty of the matter. Taking, as an instance, the case of the man who died as a result of the rupture of an aneurysm of the aorta; he fell down dead because of the rupture. Was the aneurysm the principal cause of the death, or was it the contributory cause? Or was the rupture the principal cause of the death, and the aneurysm the contributory one? Again, the aneurysm was due to syphilitic affection of the walls of the aorta. Was the syphilis, then, the principal cause? Or was it merely a contributory cause? In such a case there were three factors: the syphilis, the aneurysm, and the rupture of the aneurysm. Which of them was primary, which secondary? and what about the third? The problem was a very difficult one indeed. On his way to the meeting, while turning the matter over in his mind, he wondered whether it would not be better to substitute for "primary" and "secondary," or for "principal" and "contributory," the terms "remote" and "immediate." Those terms, again, would bring in their own special difficulties. But behind all that

there was a further difficulty. When one spoke about a cause being principal or contributory, one had to ask, "In what respect?" From what standpoint should it be regarded? In all the antecedents of an event, going back indefinitely to infinity, if one chose, one could regard every one of those antecedents as a cause. For a cause had been defined as a necessary condition, without which the thing would not have occurred. He believed that definition had been universally accepted. According to it, one cause of a man's death was that he had been born, because if he had not been born he would not have died: it was an indispensable condition. He stated that extreme case in order to show how very difficult it was to fix upon any one event as the cause of death. One would not speak of a man's birth as being one of the causes of his death, and yet, in the strict sense of the term, it was. Why did they choose one particular thing, such as the bursting of the aneurysm, or the occurrence of the aneurysm, or the contracting of syphilis, or the disease of the artery, and call this the cause of the death, rather than the patient being born? He took it that the reason it was called the cause was because, of all the innumerable ones, it was the cause in which the certifier was interested. In making out this table, different people would be interested in different aspects of the subject: therefore one would never get two people to fill up one of these forms in precisely the same way; or, at all events, it would happen but seldom. There would be frequent diversity, and that was the difficulty about statistics in matters of this kind. It had been said that anything could be proved by means of statistics, and they were certainly very variable and permitted of great elasticity of treatment. But everything depended upon the basis on which the statistics were collected. There had been a recent controversy about statistical methods, in which, again, Professor Karl Pearson was very much interested, in which it was found that certain events occurred a certain proportion of times; but everything depended on the estimation of when the thing occurred, and when it did not, on whether a particular thing was present, or whether it was not. For instance, this Association had had, in this room, controversies about the number of mentally defective persons present in prisons and inebriate reformatories. It was very easy to put down a definite proportion, say, 60 *per cent.* or 70 *per cent.*, but everything depended on the estimate made and the standard accepted by the person who went to the inhabitants of those institutions and examined them to find out the number of defective and non-defective respectively. One person would give the figure 60 *per cent.*, and another, for the same institutions, would arrive at 70 *per cent.* What he wanted specially to insist upon was that the figures were of no value unless they were estimated on the same basis, and that when one had certificates of this kind, in which everybody would have his own particular standard of estimation, it was impossible to get an uniform basis for statistics. He was not putting that forward as a counsel of despair. Those specially concerned must have statistics for their own purposes and interests, and they would be compelled by outside pressure to have statistics; but the conclusion to which his remarks pointed was, that whatever results they got from statistics, such results should be received with the utmost reserve and caution, because the basis on which the statistics were collected was a fluctuating and variable basis, and was never the same for any two people.

Dr. STEVENSON said that he would like to express his sense of obligation for the very kind terms in which Dr. Coupland referred to their efforts at the General Register Office to codify and explain exactly what they were doing at that office and what their practice had been. He did not think he could very usefully contribute to the discussion upon primary and secondary causes of death, but it was a debate to which he would listen with the utmost interest, and he did not doubt it would considerably enlarge his ideas on the subject. He did feel that the definition which had been adopted by the Registrar-General was one which was—as probably any other would be—open to a great deal of criticism. But in the absence of any definition there was no guidance as to what was meant by "primary" and what was meant by "secondary," and so, while some practitioners understood the term in the sense of importance, others understood it in the sense of time relationship. They thought that if they could introduce the idea that importance was what was in their mind, they would be taking the first step, though only the first step. Before any real basis of comparability could be arrived at, a

great many subsequent steps must be taken in elucidating and defining which of a combination of causes was to be the one selected as the chief. He would just allude to the difficulty with regard to the discrepancy between the numbers of deaths assigned to insanity in the Registrar-General's tables and in those of the Lunacy Commissioners. He thought the reason for that would be found in a statement on page xxxv of the *Registrar-General's Manual of Causes of Death*, in which it was shown that in the rules for one out of several simultaneously assigned causes, insanity was given preference over the great bulk of local diseases. As he had remarked in the *Manual* itself, they did not claim that those rules were incapable of improvement; they merely put them forward as rules which had been in operation, more or less in their present form, for many years, and, they said, they considered the present time inopportune for changing them. With regard to the request to state the form of brain disease from which the patient suffered, that was complied with by a large number of asylums, whereas other asylums did not state the mental disease. If at an asylum where that request was complied with a patient died of a local disease, the death would be classified with insanity; whereas a death from the same disease occurring in an asylum where the mental disease was not stated would go, more properly in his opinion, to the local disease.

Dr. J. F. BRISCOE said that in the paper just contributed by Dr. Coupland the subject of the causes of death had been viewed from the scientific aspect. The late Dr. Hilton Fagge, in a paper on the various modes of dying, said that men died at the head, at the thorax, or at the abdomen; and he, Dr. Briscoe, believed that most practitioners built their death certificate from that standpoint. He recently read a paper before the Association on the subject of appendicitis in asylums, but he had the greatest difficulty in getting details of any value from the Registrar-General. He had the letter from that office stating, "The Registrar-General has no information showing the number of cases of deaths from appendicitis." He went to the Blue Book of the Commissioners in Lunacy and found primary and secondary causes of death, and from that he got his cases of appendicitis. In Form 21 of the Lunacy Commissioners it was stated that the primary disease was that one which initiated and was commonest of the train of events leading to death, and not a mere secondary, contributory, or immediate cause. This subject was recently discussed before a branch of the British Medical Association, but none of the practitioners there understood the change proposed by Dr. Coupland; and as it would be meeting again on the following day at Southampton, members had asked him if he could find out the feeling of the psychologists as to how they filled up their returns. Dr. Mercier's remarks had made all his hearers think; and as Dr. Coupland was an experienced teacher at Middlesex Hospital he hoped that gentleman would make matters clear, for the primary cause of death must be the train of events leading to death.

Dr. BEDFORD PIERCE said he agreed with those who expressed satisfaction that an opportunity had been afforded of discussing the form to be filled up in cases of death. There were many in the room besides himself who had had a difficulty in relation to the certificates when the cause of death was not known, *i.e.*, when careful clinical and even a *post-mortem* examination did not disclose a cause which could be entered. If a blank form were sent an inquest would probably be ordered, with the accompanying annoyance and trouble. It practically meant that the certifier felt pressure was put upon him to assign some cause in the certificate; and every time that was done it tended to falsify the returns. In the similar tables arranged by the Association relating to causes of insanity it was understood that those who filled in the form were not to be obliged to put down a cause: a space was left for "unknown," to be filled in only after full investigation and inquiry. The result of such provision undoubtedly is to make the statistics more trustworthy. Something of the same kind might advantageously be introduced in regard to causes of death.

Dr. ROBERT JONES said it was sometimes very difficult to fill in the certificate of death; particularly is this the case where, as at Claybury, the clinical department is on one side of the establishment and the pathological department in quite another part, and where the autopsies are all performed by the pathologist. The remains of the deceased patient are taken to the pathological department immediately after death, and the examination is then made, but the pathologist would naturally know nothing about the previous history except what he read in the

case-book, or what was stated by the medical officer under whose care the patient was, and it was not always convenient for the medical officer to attend at the time the *post-mortem* examination was being made. In these circumstances and in certain cases the pathologist would naturally experience great difficulty in arriving at a satisfactory cause of death. To take a case dying, for instance, from convulsions, as 6 *per cent.* of all epileptics did, the pathologist had no personal knowledge of the epileptic convulsions, and there would probably be no pathological indication of seizures or of the *status epilepticus*, and he may be obliged, therefore, to give the cause of death according to some pathological finding which was not the immediate cause of death. He always tried to be present himself at the autopsy, and usually a clinical cause of death would be certified by him (Dr. Jones), whereas another cause might be registered by the pathologist, and anyone who had read the reports of the asylums of London would, so far as Claybury was concerned, read one series of events in the medical superintendent's report and another series of events relating to the same cases in that of the pathologist. In the case of general paralytics or epileptics he, Dr. Jones, filled in the primary cause of death as such, whereas the pathologist might record or register broncho-pneumonia, bronchitis, cystitis, morbus cordis, pulmonary tuberculosis, or dysentery. These would be found in the medical superintendent's report as secondary causes. There is no certainty that these factors would appear as the primary or proximate causes of death in the medical reports. In this way there were two sets of statistics side by side for the same series of cases in the Claybury Asylum. He appreciated Dr. Mercier's remarks concerning the personal equation, which was most important, as to finding the factors, or antecedents, or associated factors determining any event. It was out of fashion now to speak of causes. Everything is now an antecedent, or concomitant, or contributory or associated factor—not a cause! On one point relating to cause and effect he had recently prepared a letter for *The Times*, but a feeling he had in regard to the dignity of the high office held by the persons who reported what he was about to criticise caused him to abstain from sending it for publication. In the last Blue Book of the Lunacy Commissioners for Ireland, 1912, which is their report to the Lord Chancellor of Ireland, it was stated that alcohol had little or nothing to do with insanity! He (Dr. Jones) would firstly refer to the statement of the English Lunacy Commissioners in their report for 1904, which is as follows: "As before, alcoholic intemperance takes a chief place amongst physical causes (of insanity) and preponderatingly in the male sex, being noted in 22·8 *per cent.* of the male attacks (of insanity) and 9·5 *per cent.* of the females." On p. 13 of the same report of the English Lunacy Commissioners to the Lord Chancellor are these words—"In any case it cannot be denied that alcohol is a brain poison, and it is therefore incumbent to show what part it plays in insanity." [What do we find in the last Report of the Irish Lunacy Commissioners, 1912, on p. 21—"The general conclusion which may be safely drawn from the facts is that alcohol possesses comparatively small importance as a cause of insanity in Ireland." Yet these Irish Commissioners, both medical men, on p. 18 of the same report, tabulate their statistics giving the number of admissions of insane persons during the year into all the public asylums of Ireland as 3,685 (1,996 males, 1,689 females), and the number of cases where drink is the principal or contributory factor is given as 451 (366 males, 85 females), a proportion of insanity as due to drink of 18·33 *per cent.* of males and 5·03 of females, or a total amount of insanity due to drink as 12·24 *per cent.* of all cases of insanity occurring during the year! If this is not an example of the extraordinary effect of the personal equation in compiling statistics, then it is an Irish "bull," and he (Dr. Jones) was only amazed at such a report. These sentences in brackets have been altered in the proof so as to quote correctly.] In the newly proposed scheme, opposite the numbers 68 and 69 he saw a place for recording "deaths from mania, deaths from melancholia." No patient died from mania, and no patient died from melancholia, but patients did die from bodily conditions of which the mental correlative was one of the main symptoms! He believed Dr. Coupland quoted with some surprise a statement which appeared in some of the very back numbers of the Registrar-General's Report; he said so many deaths had occurred from pain, so many deaths from grief, so many from fear; surely those from mania and melancholia were examples of the same errors as were now so much disparaged, and these columns 68 and 69 were quite on all fours with those quoted with some

surprise as occurring from grief and fear. In filling up the form he (Dr. Jones) always tried to find a definite physical factor as the primary cause of death, regarding the mental condition as a correlative or subsidiary cause. Referring to the new tables now imposed by the Registrar-General, he regretted it was now too late to have them altered, as they had already lain for the period required for their approval before Parliament. He thanked Dr. Coupland for his paper.

Dr. BOND said he was quite sure all present agreed that it was a happy thought on the part of Dr. Coupland to ventilate this subject before the Association. And the history he had given of it, in regard both to nosology and tabulation, had not only been interesting to hear, but had greatly clarified one's thoughts on the matter. Upon himself it had had the further effect of reinforcing the opinion he had long held, and which was probably the feeling of most of the members, namely, that it would be lamentable if the scheme of the causes of death, their mode of certification, registration and tabulation, adopted either by the Commissioners or by this Association, were to differ materially from that in use at the time at the General Register Office, Somerset House. He said that because it scarcely admitted of argument to state that the value of the Association's own figures in relation to the insane, remembering all the labour involved in their preparation, would be rendered largely nugatory if they did not admit of strict comparison with those of the general population, of not only our own but also of other European countries. The argument in favour of a change had been abundantly supported by the evidence which Dr. Coupland had just adduced, and the paper was all the more welcome in that it furthered this international comparison of which he had spoken. Most asylums which had adopted and used the Association's tables did, of course, by such adoption, employ the terms "principal" and "contributory"; they arranged their causes of death in groups and in the manner followed by the schedule issued by the Commissioners, which, as was well known to members, followed that in use at Somerset House. There remained, however, a few asylums which did not do this, and their figures were by that fact made less easy of reference. With regard to the Association's death tables (D<sub>1</sub>, D<sub>2</sub> and D<sub>3</sub>) he took it that if the new scheme were adopted it would be necessary to change the words "principal" and "contributory" back to the old terms "primary" and "secondary"; but he would suggest, in the light of the definitions of the latter terms as set out in the new certificate of death, that it would not be incorrect and might be helpful to retain the terms "principal" and "contributory," but place them in brackets after "primary" and "secondary" respectively. He was very glad to notice the stress which Dr. Coupland laid on the importance of secondary causes, and desired heartily to endorse the remarks of Dr. Mercier and Dr. Robert Jones on the difficulty which was frequently encountered of relegating a cause to a secondary position. Indeed, the mention of these words "primary," "secondary," "principal," "contributory" led him to ask the meeting to consider whether there was any use at all in these words, as here applied. He had given a good deal of thought to the point, and could not satisfy himself that there was any statistical necessity for, or any scientific gain by, their employment. On the contrary, their retention, he believed, was a scientific loss. For his own part, if it had to be conceded that there was a fundamental necessity for the picking out of only one cause, namely, the primary one, for tabulation and registration, then the argument he wished to put forward fell to the ground. But he did not concede that it was so. In his own view, the Association's Table D<sub>1</sub>, with its three columns—principal, contributory and total incidence—refuted the necessity of such. One could find many examples to show that the custom of selecting a single cause for tabulation and magnifying that cause had the effect of diminishing any other causes by just so many times as those other causes were dubbed secondary. He did not think any two persons looked at a given clinical case, and the result of *post-mortem* examination on such a case, quite alike; and it passed the wit of medical men to be able, in the case of a considerable proportion of deaths, to decide which cause was the principal one. His view was that, however cleverly the definitions were framed, the personal equation of the certifier was bound to make its effect felt, and even the mood in which he happened to be at the time, and, while he recognised that statistics embracing a large enough number of cases had the effect of largely eliminating the personal equation, he felt that it was a pity to introduce it when, as here, there was no necessity. Briefly put, his con-

tention was that scientific accuracy would best be served by the abolition of any attempt to separate causes into such groups as primary and secondary, and, whether this practice were or were not retained, by the systematic tabulation and publication of the "total incidence" of the various causes, *i.e.*, the aggregate of the figures, representing their primary and secondary incidence. If that suggestion were to receive recognition, the next question to consider would be the desirability of studying the relation of age-periods, not, as at present, to the principal incidence, but in future to the total incidence of the various causes of death.

Dr. M. ABDO COLLINS said that Dr. Bond's remarks were largely on the lines which he had intended to follow. His difficulty was that there was no real difference between the primary and the secondary causes; and this difficulty would exist so long as an attempt was made to pick out one of an array of causes and say it was primary or it was secondary. And in making a *post-mortem* examination, probably no two people would agree as to what was the primary cause. What were usually attributed as the primary causes were not really so; as a matter of fact, the primary causes of death were very few: syphilis, tuberculosis, rheumatic fever, typhoid fever, and so on; yet they did not enter at all largely into the certified primary causes. The primary cause of an attack of insanity was difficult to ascertain, and the same difficulty occurred in relation to the cause of death. So long as this requirement continued, so long would the figures appear foolish in the eyes of students of statistics.

Dr. MENZIES said there was one point on which he would like some light thrown by the Commissioners, namely, the duration of the disease. At various times there had been agitations against stating the duration of the disease, because of practical difficulties in reference to the relatives, insurance companies, and employers. If it was not obligatory to state any duration at all, what object was there in requiring such detail in the new form of certificate? Some of the members had had experience of the troubles which might arise through being called as witnesses. An insurance office refused, say, to acknowledge liability to pay the insurance on a man's life because he was the subject of general paralysis. Early symptoms of that disease, in themselves rational actions, were not uncommon, and one of the things such a man might do was to go and insure his life. A patient insured his life three years prior to his admission, and he had begun to spend his money freely six months before that. In the end he died of general paralysis after two months' residence in the asylum. In that case ought one to put down as the duration of his illness the two months he was in the asylum, or the three years and six months during which there was a history of onset? If the shorter period, then the insurance people would pay without demur; but if three years and six months were stated, they refused to meet the claim, and he had known a threat to fight the case at law to arise out of such. He had known poor people have to give up a claim of £24 on a life because at the time of entering into the policy they were ignorant of the existence of the general paralysis. The same could be said of phthisis. In the present form one could put in the word "unknown," and then no one raised the difficulty. What was the object of requiring the duration of the disease to be stated so exactly in the new form of certificate?

Dr. McRAE, referring to the remarks of Dr. Menzies as to the duration of the disease, said that a colleague once got into trouble in similar circumstances, and his own practice was simply to add the word "over" to the period of asylum residence. That satisfied the Commissioners in Lunacy, and avoided trouble in connection with any claims.

Dr. W. DAWSON expressed his full concurrence in what had been said about the difficulties introduced by the personal equation; but with regard to one of the difficulties in which Dr. Jones found himself, he was glad to be in a position to relieve his mind. Dr. Jones said he found a discrepancy between the report of the Irish Inspectors in Lunacy and a former statement of Dr. Coupland's. There was in reality no discrepancy. Dr. Jones alleged that a statement had appeared in the report of the Irish inspectors to the effect that alcohol had nothing whatever to do with insanity. Nothing of the kind appeared in that report. What did appear was that, upon careful comparison of the statistics, there was found to be no relation between the distribution of drunkenness and the distribution of insanity in the different Irish counties, and that the statistics showed very little chronic alcoholism in Ireland.



Dr. COUPLAND, in reply, admitted that it was often impossible to state definitely the duration of a fatal disease. Although the requirement to do so had long been on the forms of death certificates, it was not enforced; nor were the data furnished by very many practitioners. The information, moreover, was of no material value. In altering the phrasing of Form XXI, it was thought well to adopt that in general use, but had the point raised by Dr. Menzies been then appreciated, the chronological headings might possibly have been omitted. On this ground he was sorry that he had not thought of bringing the subject under the notice of the Association at an earlier date. One could concur in much of Dr. Mercier's criticism, but if we were to have national statistics at all, we must have some definite basis on which to proceed. The value of collating all assigned causes of death in order to arrive at correct knowledge of disease incidence, was, as pointed out by Dr. Bond, indubitable; but apparently for the purpose of death registration and analysis, it has been deemed necessary to restrict the comparison by limiting attention to one cause for each individual. The division into "primary" and "secondary" had no doubt led to confusion; and the wider our knowledge the greater was the confusion likely to become. He felt that even now Somerset House would not get absolutely uniform returns; it seemed impossible. Still, Dr. Stevenson had made a very gallant and useful attempt in the *Manual*, a copy of which was passed round, which he hoped would be in the hands of all who had to register deaths at asylums. It was worthy of study, and would be found very helpful.

The following communication has been received from Dr. Hayes Newington:

The debate on Dr. Coupland's paper read at the last general meeting brought back upon me memories of former discussions, arguments, platitudes, the "*non sequitur*," the "*reductio ad absurdum*," and so on, through which, in the same room, the members of the Statistical Committee passed on their way to the evolution of the present tables. I should have liked to join in, even for the sake of shaking hands with some old acquaintances, but I felt that to do justice to them required more clarity of thought than the labours of the day in other directions had left me. It is more than ever apparent to me that faith in the usefulness of statistics has a weak and flickering vitality, one that can be easily hurried into an early grave by a few slight, though respectful prods, to have its virtues finally recorded by the epitaph, "one can prove anything by figures." My memory does not actually tell me that the epitaph was put up on this occasion, but as a rule no decent burial of statistics is complete without it. It is undoubtedly permissible to minimise the evil use of statistics by pointing out their obvious defects, and on this occasion many insidious and destructive defects passed unnoticed. Still, the world will have statistics, and one would like to see more endeavour to increase than readiness to depreciate their value. It occurs to me that most of the trouble arises from our expecting too much from them. We look to obtain as much value from the enumeration of data which are obviously uncertain as from those which are probably accurate. If we approached a statistical problem with the acknowledgment that as much instantly available virtue cannot be found in the Registrar-General's death tables, for instance, as in the financial statements of the Bank of England, we should not be so disappointed in our labours; we should at least leave a margin for the discovery of some value, however small, in statistics of any kind, provided reasonable care is taken and reasonable allowances are made. When we come to think of it, even the statements of the Bank of England are not absolutely certain within our own personal knowledge. We accept them, and, maybe, deal with them as uncontested and incontrovertible, but we do so only on faith in the opinion of others. To satisfy ourselves personally we should have to see that no box of bullion contained a quantity of lead equal to that of the gold assumed to be contained therein; that the securities supposed to be held by the bank were actually in the possession of the bank. It happened not long ago that the manager of a large bank borrowed money for his own personal use on securities lodged by customers, and actually succeeded in deceiving the professional auditors, when they came to inspect the securities, by running round the corner to pledge some of them for money so as to release others which, in their turn, would be wanted for inspection. Incredible as it may seem, this imposture went on for some time. Then to return to the bank, the data have to be accurately collected, stated, and

summed up, and finally the responsible officer has to announce what the world takes to be facts, but which can at the best be only his opinion, since it is impossible for him, as it is for us, actually to verify each datum, and each figure built up on the data. It is obvious that even in the transactions of the Bank of England there is only a moral certainty, amounting almost to, but not quite reaching, absolute certainty. And so it is with all statistics. The calculations founded on the least certain bases only differ in degree of certain accuracy from that which passes as absolute truth. One is led by the conviction that, after all, what we call statistical facts are but opinions, to the reflection that opinions are divisible into two classes, the personal or individual, and the general or homologated. The former is notoriously liable to error: our old friend the personal equation comes on the scene. He is indeed a troublesome person at any time, but doubly so when he ceases to be an equation, by failing to adopt a consistent practice of his own. It may be said that, from one point of view, the chief aim of statistical inquiry is to get rid of and abolish the personal equation, to iron out the creases caused by personal inaccuracy, whether it arises from incompetence, carelessness, want of proper opportunity, or even that mild form of fraud which allows a man, often unconsciously, to give value only to those points which fit best with his preconceived object. We reduce his error of opinion on one side by mingling it with other opinions, which may and probably do compensate by errors on the other side. In any case we get an average, which is probably not exactly accurate, but is certainly more likely to approach truth all round than the personal expression of belief. The greater the difficulty of following out the threads of a complex problem, the greater is the need to reject the personal in favour of the average. The world demands statistical opinion, in fact it cannot regulate itself, it cannot do its business, it cannot protect itself from injury or loss without the aid and guard supplied by average opinion. Let us take the question of the alleged increase of insanity, involving as it does momentous issues of race degeneration, costly provisions, deep thought and arduous endeavour to meet and conquer the assumed evil. If we rely on personal opinion we are landed at once into a quagmire. "A" is loud in the expression of an opinion, founded on his personal experience, that the world is rapidly becoming a mad-house. It may be that he really does know of much insanity in increasing ratio. He may acquire large acquaintance with such cases by reason of office, of increased reference made to him as he gets older, or increase of practice and so on. His accumulated knowledge tends to settle itself down on the more recent years, and thus vitiates that comparison with earlier years which is essential to the estimation of increase. "B," on the other hand, withdraws himself from the activities of life, meets fewer people, reads less and consequently hears less of occurring insanity. It may be that he, therefore, forms the opinion that there is actually less insanity. The only adjuster of such personal divergences is general or average opinion. In this particular matter the Commissioners in Lunacy collected general opinion, and, digesting it with other information at their sole command, produced a cautious conclusion which, in the view of most of us, is slowly showing itself to be the correct one. Assuming that we may be able to attain reasonably useful information by careful digestion of general opinion, to what use shall we put that information? If the data are practically certain, and if the steps of evolution between them and the conclusion evolved are short and clear, we can act on that conclusion at once. For instance, we might take the balance-sheet of a bank, or other reputable undertaking, as a practically sure guide to safety in investing capital therein; but where the data are uncertain and the process of forming a conclusion from them involves numerous complicated and doubtful stages, then it is only the fool and dishonest that would use them for immediate action. They need to be reserved for comparison, which is, I suggest, the chief, one might say prime, method of applying such value as they may have. Even in the case of the bank, however profitable the operations, as recorded in the balance-sheet, may have been, they might have been more profitable in the preceding year, and yet more so in years before that, and such facts suggest reflections which would have been dormant without comparison. A cautious man will invariably regard the comparing value of figures before their positive value. This obviously must be the case with our figures dealing with the problems of insanity, subject as they are to the uncertainty of data, and liable to such a disintegrating factor

as the 4s. grant of old or the 7s. grant now proposed. The former in its effect invalidated all the comparing value ratios arrived at before that time. To sum up my argument, I submit that, with the exception of a very few, our data are too uncertain to have any positive and immediate value, and therefore can only be used for the purposes of comparison with their predecessors and successors. But there is one advantage, *viz*, that they are dealt with mainly by men who have special knowledge, combined with experience in tabulation. Opinions may differ, but they are very generally made with some scientific intention and discrimination. Further, the departure from truth can be to a great extent discounted by widening, as far as can be, the area of collection of opinions, and, as a corollary, any one of us who is in a position to collect and tabulate a sufficient bulk of experiences owes to future generations the duty of contributing to the best of his ability. It may be that no fruit will be gathered in our day, but present endeavour must, without doubt, prepare a large amount of material from which broad conclusions of much value will be drawn some day by the skilled statistician, who can be trusted to generalise, without falling into traps of error, which he will learn to avoid by the mistakes of his predecessors.

With respect to the new summary of deaths table laid before the meeting by Dr. Coupland, I entirely associate myself with the views expressed by Dr. Bond as to the pre-eminent value of the column for total incidence; in fact I should go further, and prefer, in place of the two columns of primary and secondary causes of death, one column only for the enumeration of all appearances of a disease contributing to death, stated indifferently either as to time or importance. We know, however, that the insertion of these two columns is the price that is paid for extending the uniform basis of enumeration; on the part of the Commissioners, by bringing our statistics into line with those of the remainder of the nation; on the part of the Registrar-General, by bringing the nation's statistics into line with those of many other nations. I take it that if, as I suppose, it is sought to arrive at the total lethal influence possessed by particular diseases, the whole of the occurrences of those diseases, as causes of death, must of necessity be enumerated. It seems a pity that, when we start fair for this table with, firstly, a defined datum that cannot be a matter of doubt when it is stated—a doubt which must often be present in the assignment of insanity, or recovery, or form of the mental disease—and, secondly, with much and increasing precision in determining the existence of the diseases themselves, it should for other reasons be needful at the very outset to import a source of much doubt. The exact meaning to be given to the two terms used offers an occasion for that doubt, an academic doubt, whether, as has been said with some authority, "prime" in itself means of chief importance, or whether, as has been felt by others, of whom I am one, that the root sense of the word means priority in time, the alternative only growing from it by a process of conventional, but by no means general, practice. But however that may be, there are plentiful instances of its use in either sense in all relations by all classes of speakers and writers. Primary dementia is a case in point, but the most convincing instance of doubt is supplied in the course of certifying death. In 1845 the instructions issued to certifiers bade them "write the causes of death in the order of their appearance, and not in the presumed order of their importance." In the manual prepared by Dr. Stevenson, and issued by the Registrar-General, one reads, "They *now* are *very generally* used as indicative of the relative importance of the causes certified." In the face of that, it is mere waste of time to discuss the question of what the terms ought to mean. Then there is the doubt, so freely expressed at the meeting, about the selection of the more important disease as the cause of death. There is, indeed, the opportunity for the personal equation. The question of which method best subserves the ultimate aim of the enumeration, whether, on the one hand, the selection of a frequently doubtful particular, or, on the other hand, the enumeration of the total particulars presumably stated accurately, is best discussed on concrete example. For this purpose I have taken, from the last asylums report of the London County Council for 1911, the twelve diseases most prolific of death in those asylums. The total deaths in the report are stated to have been 1,673, a number clearly sufficient to form a satisfactory basis. In addition, the causation has been stated by a body of men who must be held to be at least up to general professional average in capacity, experience and scientific instinct:

Disease.	Primary.	Secondary.	Total incidence.
General paralysis . . . .	335	7	342
Tuberculosis (lungs) . . .	233	49	282
Pneumonia, broncho- . . .	107	106	213
Valvular disease of heart, endo- carditis . . . .	74	79	153
Arterio-sclerosis . . . .	74	76	150
Fatty degeneration of heart . .	55	79	134
Old age, senile decay . . .	99	28	127
Organic disease of heart . . .	26	95	121
Pneumonia, lobar . . . .	84	18	102
Bright's disease, chronic . . .	43	49	92
Brain, softening . . . .	61	28	89
Dysentery (colitis) . . . .	69	16	85

Of course in the case of general paralysis we have to deal with an all-sufficient and desperately effective disease, and it is somewhat extraordinary that even in seven out of 342 instances it could occur in such a relation as to admit of its being returned as secondary. Here the primary relation practically covers the whole causation, but when we come to such diseases as chronic Bright's and the cardiac affections, can it be said that the primary column tells anything like the whole truth as to the fatality really attributable to them? With how many of the secondary causes may they not have been the real determiner of death, by turning the balance against recovery from the so-called primary disease, from which the sufferer might have recovered if the secondary had not been present? In such a case it may be fairly said, on the other hand, that the sufferer might have lived on with the chronic disease if the primary had not occurred. The truth of such an allegation may be admitted, but this evident possibility on either side strengthens the call for all causes being enumerated on equal terms. It was for such reasons that the Statistical Committee introduced the column of total incidence in Death Table D, i. The same views prevailed in settling the method of enumerating the assigned causes of insanity. Whether alcohol is regarded as a cause or only a symptom of existing insanity, its use in either relation is productive of the mental condition at the time of enumeration. In view of the great diversity of opinion, the estimation of alcoholic influence only when it is stated to be a primary cause would leave out of sight much that should help to the accurate determination of its prejudicial effect. It is right to point out that in the manual mentioned before there are rules by which a choice of one from two or more assigned causes may be made for the purpose of preferring one to the other or others. But, though fairly compact, these depend for their proper use on a series of groupings. To secure uniformity it is absolutely necessary that every certifier should have a copy of the manual in his possession.

*The Care of the Defective in America.*<sup>(1)</sup> By WINIFRED MUIRHEAD, L.R.C.P. Edin., Pathologist, Royal Asylum, Morningside, Edinburgh.

IN the United States of America each state has self-government and different laws, and the latter differ to an even greater extent than is the case between the laws of Scotland and England; consequently some states have progressed infinitely further than others in the laws and the application of these laws for the social welfare of the people.

I was only able to visit institutions for the care of the feeble-minded in a comparatively small area of three states, and

I propose roughly to compare the commonwealth of Massachusetts with the country of Scotland, because in this state the laws for the control and care of the defective are administered by the State Board of Insanity, and the Mental Deficiency Bill at present before Parliament, as it applies to Scotland, will, in the same respects, be administered by the General Board of Lunacy, the corresponding body in this country.

Massachusetts in the census of 1909 gives the population as 3,366,416, of which number the largest town, Boston, owns 670,585 souls. Scotland, according to the last census, 1911, has a population of 4,759,445, of which the largest town, Glasgow, has 784,485; thus the number exceeds the population of Massachusetts by over 1,100,000 people. In this state the control of both state and private institution for the care of the insane, the epileptic, the chronic inebriate and the defective is administered by one central body, namely, the State Board of Insanity, and as a result great unity of control and ease of transference of patients from one type of institution to another are achieved. The term "defective" is here used to cover the three grades—the idiot, the imbecile, and the higher grade defective or moron.

In Massachusetts at the present time, according to expert opinion (1), there are two defectives in every 1,000 of the population, which makes a total of 6,700, but this is probably a conservative estimation, and it is stated that there is no reason to consider that they have a larger percentage of defectives than exists in any other state or country. The number of defectives under control is 2,034, which is less than one-third of the total estimation of defectives in the community. The bulk of these cases, nearly 1,500, are segregated in the Massachusetts School for the Feeble-minded at Waverly, with its large annex colony at Templeton; the Wrentham State School has nearly 300 children, and the Hospital Cottages at Baldwinville, for defective but principally epileptic children, has over 100 patients; this is partly a private charitable and partly a state institution; the remaining number of the defectives are controlled in one or two smaller private institutions and in various workhouses.

Massachusetts also possesses a large institution for the care of epileptics, namely, Monson State Hospital at Palmer, in which there are about 900 patients of both sexes, children and adults; this serves as a hospital, school and colony for 130 children,

a colony for women, and a farm colony for adult men. Insane epileptics are treated in the asylums, but practically all the patients in Monson are defective and some are insane.

I shall very briefly describe Massachusetts School for the Feeble-minded at Waverly. Dr. Fernald, the superintendent, most courteously extended hospitality to me for ten days, and allowed me to wander where I liked and when I liked. This is a most ideal institution for the control and the care of the feeble-minded: it is situated eight miles out of Boston, and covers 150 acres of land, and as it is a state school there is no choice of cases, low-grade idiots, paralysed cases, imbeciles and the higher grade cases being equally admitted. The ages of the inmates vary from five to sixty years, and at the time of my visit there were 1,564 patients enrolled in the books, 955 males, and 609 females; however, only 1,440 were actually in the institution, of which number 251 adult males were living at the farm colony at Templeton. The remaining number of the children were home on pass. The admission-rate for 1911 was 217, the number of applications for admission was 484, and each year the number of applicants is increasing, not necessarily owing to the actual increase of defectives in the community, but due more to the recognition by the parents and public generally of the nature of defect, and that these children are entitled to special training; as Dr. Fernald points out, many cases apply for admission who some years ago would not have been considered feeble-minded. This institution is built on the cottage plan, of which there are ten; there is also a hospital for feeble children and adult females which possesses an isolation wing for infectious cases. At the present time in process of construction is a similar hospital for adult males. The school house and manual training or industrial block are both separate buildings, and there is a large administrative building with residential quarters for teachers; the nurses are accommodated in three separate homes.

Each cottage accommodates units of usually 100 patients; the design is simple, very inexpensive, the most expensive cost about £75 per bed, and they are all built much on the same plan. They are brick buildings, two storeys high with a basement; the inside walls are of brick, and in many instances these are simply painted; the stairs are covered with black rubber, which wears very well; the building is constructed on

fire-proof principles, and the facilities for emergency exits are excellent. The heating system and system of ventilation are provided from the main central engine-plants, as is also the electric light. In some instances the dining-room was situated in the basement, and adjoining it is a room which is a combination of serving-room and housemaid's pantry, where the food is served and the dishes washed. Other parts of the basement were utilised as a sewing-room, an elementary manual training room and a special sense room. On the ground floor there is a large bright day-room on one side, which always contains a cabinet with toys, books and games, and the corresponding room on the opposite side of the corridor makes a light airy dormitory, adjoining which is a room for toilet and lavatory accommodation and also a clothes room. Upstairs both rooms are used as dormitories, each with its complement of toilet, lavatory and bathing accommodation, and clothes room in which each child has a locker and peg. There is practically no waste of space. No cooking is done in the cottages; the food is all carried from a large central kitchen to each cottage by the boys. Every cottage has its own playground adjacent, which is fitted up with swings and other means of amusement. A matron is in charge of each house, and she has an office and a bedroom. This system of having self-contained cottages makes the classification of the patients according to their mental capacity very adequate, and the children of different grades of mental enfeeblement need never associate; in fact, the very low-grade idiots are never in contact with the brighter cases. One or two of the older buildings are three storeys high, and correspondingly accommodate more patients. Shower baths are the only ones used. Each child has a tooth brush, which is used twice daily, and once a week a dental surgeon visits the institution. One house is reserved for adult low-grade male idiots, paralysed cases, and a certain percentage of moral imbecile lads; the attendants in this cottage are men, but a matron is in charge. Every house has night supervision, also there is a night watchman patrolling the grounds, and as an extra precaution for safety, one of the telephone girls is on duty all night in the administrative building; by this means Waverly is kept in touch with the far-distant colony of Templeton at all times.

The school house is another inexpensive two-storey brick

building. On the ground floor there is a gymnasium, with some small rooms used as dressing-rooms, and also a music-room; upstairs there are several bright airy school-rooms. In this institution the whole education of the defective child is utilitarian; no time is wasted over education in the ordinary sense of the three R's unless the child has the mental capacity both to assimilate and to retain such teaching. The school classes are graded much as in board schools, from kindergarten upwards, and the teaching is such that all the many improvements introduced for teaching the normal child are used and amplified. The object lesson is very largely employed for teaching purposes, and the school possesses a magnificent collection of "objects" and toys for this purpose, even a live zoo. The scholastic teaching in short is simple and practical, half a day only is spent in school and the classes are short in duration, usually twenty minutes to half-an-hour. They are also very varied, so that the child's attention is retained. The manual-training building is a similar one, and here the children have work in classes just as in school. The ground floor is for the boys and contains a sloyd room, printing press, weaving looms for towels and rugs, painting shop, joiner's shop, brush making, switch making, rope mat making, net making, basket weaving and shoe repairing. Nearly all the towels and all the rugs for the institution are made here. Upstairs is the girls' department, and here also the industries are varied: looms for weaving rugs, curtains and towels, basket making, hand knitting, electric machines for knitting stockings, mittens, jerseys and caps; this department entirely supplies the institution with these articles; crochet, pillow lace and embroidery are also taught. There is one large sewing-room with twelve foot-machines and an electric cutter which can cut 100 articles of clothing at a time with no waste; the clothes for the entire institution are made in this room. Another large room is reserved for domestic economy. Classes are held for the girls in the ordinary domestic duties such as kindling fires, cleaning, washing, ironing, cooking, washing dishes, waiting and setting tables, dusting, making beds, etc., and from these classes the girls are much more fitted to graduate as workers in the laundry, kitchen, scullery, pantry, and as waitresses in the officials' quarters than if they had received no such previous training. In charge of every department is a trained teacher.



Physical drill classes on the Swedish system are held all day, and nearly every child receives this training in some modified form suited to his capacity; in winter the classes are in the gymnasium, in summer they are held on the lawns. Music is very largely used in the physical drill. Dr. Fernald considers the value of the motor training of the defectives is the most important aspect of their education, in drill the co-ordination of the muscles, the alertness and instant obedience necessary are all valuable points in the training, and in their games, which is part of the physical training, and which are always supervised, the inculcation of the moral instinct of fair play is strictly enforced.

This motor training commences with the simplest of exercises, and always from a utilitarian aspect. Even the young children learn to pick three different types of stones from a mixed heap, and grade them in three separate heaps according to their size; a similar exercise is conducted with a pile of wood. Small spades are given them and they are taught to dig and later to use a pick. Polishing classes on the floors are held, also very simple marching exercises, keeping rhythm to the sound of a drum, and simple relay games. All these exercises are conducted in classes, and the imitative faculty which the children possess largely aids in their education. The use of tools is taught in a specially fitted-up room, and when they can handle hammers, nails, saws and planes, the boys are ready for the sloyd training. Very elementary sewing classes are conducted for the girls. Side by side with the motor training, and just as important, is the training of the special senses; here again the simplest of exercises and objects are used.

One very large room is fitted-up with every conceivable type of articles for special sense-training, and classes are held here every day. The whole training is a gradual evolutionary one, conducted very much on the principles propounded by Dr. Seguin; building up the motor and sensory co-ordination until even the lowest-grade idiots, unless they are completely paralysed, can to some extent be taught to help themselves. Both the very low grade men and women have in their playground three heaps of stones in circles, in which they work every day changing one set of stones into another empty circle, and this constant exercise is, in the men's case, utilised, as they are now capable of clearing stones off the land.

The constant employment of the mentally helpless idiot has greatly facilitated the care of this class of defective, and no restraint is necessary or is ever used in this institution. No patients, unless they are prevented by absolute physical enfeeblement, are idle, and paralysed cases and even blind defective children do excellent handwork. The majority of the children never receive scholastic education, and yet these children are good outside workers on the farm and garden, painters, weavers, sewing-maids, laundry-maids, and kitchen-maids, and prove just as little expense to the community as the child who has graduated from the school. The brighter boys also learn housework, and they wait, wash dishes, and make beds in their own cottages. The brighter older girls are utilised in helping with the care of the younger children, and are very fond of this work; incidentally, this is an immense saving to the institution in paid labour. The girls also look after the chicken farm.

In summer for two months there is no school, and very little manual training; consequently the older boys are employed outside all day working in the farm and grounds, digging trenches, building walls, etc. On the other hand, the training of the younger children in motor and special senses never ceases, although it is largely conducted outside. This summer the foundations of the new male hospital have been dug out, and built by the boys, under the supervision of three paid masons. The stones used for the building were cleared off the estate, largely by low-grade boys. Gangs of boys, with one or two attendants, were digging out trenches for an electric cable, sewer-pipes, and heating-pipes. Two or three of the boys were managing teams of horses. No tobacco is permitted for patients, and employees may not smoke whilst on duty. The boys are allowed great freedom; in almost all instances they have parole of the grounds. On the other hand the girls are never allowed out of observation. Escapes amongst the boys are fairly common, but it is a rare event for a girl to run away. The sexes are kept separate, except in the classes for the very young children; even in the weekly dances boys dance with boys one dance, and girls with girls the next dance. The band is composed of girls, and both the boys and girls respectively have choirs, and are taught part-songs. Every week there is some amusement got up for the children, in which the children

themselves largely help. Both boys and girls run two baseball teams and two hockey teams, and the boys also have football teams; on Saturday they have great matches between girls and girls, and boys and boys. In spite of this separation of the sexes, a personal relationship enters into the daily life; the boys work for the girls on the farms, dairy, making roads, and in the workshops; in return the girls assist in the washing, cooking, and making of clothes for the boys. The diet is very good and varied. There is no distinction made between private and State patients. It is a large and very mixed community, but a wonderfully happy one.

At Waverly there is free consultation one day in the week. Many difficult cases are sent for diagnosis to Dr. Fernald from charities, schools, juvenile courts and other sources. Clinics are held in the institution for students, for medical men, and for normal school-teachers. A certain number of the latter also reside in the institution during the summer vacation, and this system enables these women to obtain a much greater insight into the nature and care of the defective, and also must be of great educational value, as these girls, from their practical experience, will talk of the great need of segregating the defective in institutions.

Templeton Farm Colony for adult men is situated sixty-one miles further down the same railway line. It is a tract of land 2,000 acres in extent, originally two or three farms, so, in part, was cultivated. The colony has four groups situated about a mile apart, and each group can accommodate fifty or more boys. Here, again, the boys are classified in the respective units according to age and mental fitness. The original farm-houses have been re-modelled, dining-rooms and larger kitchens added, and dormitories for fifty or more boys annexed. These are very simple wooden buildings with stone foundations, L-shape design, and at the angle of the L are situated the lavatory and toilet-rooms, which are brick-lined, with a cement floor continued up the walls to avoid corners, and which slopes to one or two drains; the boys can actually be hosed in this room without flooding the floor. In each arm of the L is a dormitory, a large room with many windows, three exit-doors, and a brick fireplace, into which is fitted a mammoth stove. A comfortable day-room, with the usual cabinet containing games and books, is provided; the accommodation is

simple, cheap, and yet absolutely efficient in every respect. The cost was £40 per bed. Each farm unit is in charge of a matron and a farmer, two or three women assistants, and three men. The finance and store arrangements are entirely under the control of the mother colony. The boys work on the farms as labourers, building walls, digging, ploughing, making roads and trenches, and assist with painting and domestic work. The colony has a small laundry, in which the boys work. All the fuel is wood supplied on the estate, the chopping and carting of which gives the lads labour for winter. Oil lamps are used for lighting, but as there is good water-power on the estate they eventually hope to have electric light. The whole produce of the farm is consumed by this colony and the mother school—in fact the institution is not yet quite self-supporting in farm produce and in milk. Oxen are principally used for draught purposes, and it has been found cheaper to kill these for meat in winter. One farmer is the head of all the farms, and each unit is connected by telephone to his house, and he, again, is on the main system. A report is sent to Waverly every morning, and once a week an assistant physician visits the colony. A local doctor is called in for an emergency. Bread is sent from Waverly every day, and in return, vegetables, apples, and other fruit and corn are sent from the colony to Waverly; the colony has its own siding on the local trolley-car system. The possibilities of this farm colony are tremendous, and when you consider that these lads are middle and lower-grade defectives, only 25 *per cent.* of whom have received scholastic education, it demonstrates that the utilitarian education obtained at the mother school has proved a complete success in making these boys under supervision almost self-supporting, and many of them can do the full work of a labourer. It would be difficult to find a healthier or happier group of lads; they have complete liberty, and yet runaways are practically unknown. The cost per head of the combined institution is 15s. 6d.

In America the colony system of segregating the defective has proved so successful that all new institutions are now built on this plan, and large tracts of land are bought with a view to ultimate expansion.

Massachusetts is at present facing an interesting problem, namely, the incidence of the defective in its industrial schools,

reformatory and prisons, also, of course, in its poor law institutions, and the recognition of one special type of defective, the moral imbecile, in whom the moral defect is relatively more marked, whilst the mental defect is relatively slight, in America termed the "defective delinquent." A commission (1) was appointed by the governor in 1910 to report on "The Increase of Criminals, Mental Defectives, Epileptics and Degenerates," and that report is most instructive. Every industrial school, reformatory and prison has a percentage of defectives as in this country, many of them of the delinquent type, and money is simply wasted on this class from the point of view of reform. This delinquent class is also not suited for the ordinary institution for the feeble-minded; they are the instigators of mischief, and have a most pernicious influence on the simple feeble-minded, and yet they are more and more being sent to such institutions, especially the girls, often to avoid a prison sentence. The commission strongly urged the legal recognition of this type of defective. A law has now been passed which differentiates this class of defective from the simple feeble-minded, and provides especial accommodation for their detention; an institution somewhat between a defective institution and a reformatory is suggested. In the meantime, until this accommodation is provided this class is still detained in penal and defective institutions. Amongst other suggestions in the report is that there should be observation departments for defectives in all penal and reformatory institutions, and that in all cases in which an alienist is not attached as consultant to such an institution, there should be co-operation between the alienists in the asylums and institutions for defectives, and the staffs of the penal and reformatory institutions. This method would allow the mental condition of all inmates to be accurately diagnosed, and an examination of prisoners at the expiration of their sentence is particularly urged so that no defective is once more allowed at liberty in the community. Research in finding out the causes of degeneracy and mental disease is strongly advocated as providing a better basis for the future legislation of prevention. There are many other recommendations too numerous to mention here.

Monson State Hospital for Epileptics covers a little less than a thousand acres of land and has about 900 patients. The colony is planned in groups of cottage houses, some accommo-

dating 25 and some 100 or over 100 patients. The educational system is, as in Waverly, utilitarian much more than scholastic. The male patients build roads, work on the farm and garden, the women do house-work, kitchen and laundry-work. Dr. Flood, the superintendent, has an interesting project eventually to place the greenhouses and chicken-farm in the care of women patients, and by this means vary the monotony of domestic work for them. A manual training department for the children, women and men is organised, also a school for the children.

The diet is good; meat is given every day except Friday, and large quantities of milk are consumed. Monson owns a fine herd of cows which supply all the milk used. The buildings are mostly two- and three-storey brick buildings, inexpensive and simple in design, with day-rooms and dormitories, and nearly all possess excellent verandas; these are especially good in the children's colony; the hospital also has verandas. The helpless and excited patients are very well looked after; no restraint is used. For dining purposes usually houses and cottages are grouped for food, one larger one possessing a kitchen and dining-hall, and to this the patients congregate from other cottages and houses. A visiting dental surgeon comes once a week to attend to the teeth. The hospital is equipped with a very good operating theatre and dental room, also a hydro-therapeutic and electro-therapeutic department. All the patients looked happy and contented, and were busily employed outside or inside doing work of some kind. In this institution also there is no distinction made between private and state patients.

It is apparent that the small Commonwealth of Massachusetts has progressed further than we have in the care and segregation of the defective, and that it is alert to the necessity of progressing still further in every direction in order to combat the evils which are associated with civilisation, and which sap the vitality of the race. I visited three other institutions for the feeble-minded—the historic school of Elwyn, near Philadelphia, Pennsylvania, and two in the state of New Jersey, at Vineland, namely, the New Jersey Training School for Feeble-minded Boys and Girls, and the New Jersey State Institution for Feeble-minded Women. Elwyn, which is a large institution containing 1,100 inmates, and the Vineland

School for Children, are in many respects like Waverly: they have separate houses, which enables a classification of the children, both have schools and manual training departments, and the boys work on the estate farm. If anything, especially at Elwyn, the education of the child is not so practical and useful. Restraint is used in both these institutions. The great disadvantage of these two schools is that they have difficulty in keeping their adult cases. The State Institution for Women at Vineland contains about 230 inmates. Twelve is the age of admission. These women are, if possible, retained permanently, and the law practically allows this procedure for women of child-bearing period. The superintendent, Dr. Madeleine Hallowell, a medical woman, is making numerous improvements, and has many schemes for the future, which, if realised, will greatly enhance the usefulness of this institution. A practical industrial education is given a more important place than a scholastic one, but the social training, such as choirs, dancing, a good orchestra, and physical drill, also largely contribute to the happiness of these unfortunate women. Many of these women are higher-grade defectives, yet they look, and are, happy and contented, and all are busily employed in the kitchen, laundry, sewing-rooms, schools, etc. This institution and Elwyn sell articles made in the industrial departments. The problems of these three institutions are much the same as at Waverly, principally the difficulty of permanently retaining the adult defective, and every superintendent is unanimous in condemning the discharge of these cases unless they will be very carefully looked after outside. Disaster is particularly apt to occur in the case of the high-grade defective, whose excellent training still further masks a mental condition which is already so deceptive to the general public. Dr. Barr, the able superintendent of Elwyn, says that less than 5 *per cent.* of discharged cases do any good. The control of the defective delinquent among the simple feeble-minded is another constant difficulty.

In the state of New Jersey a law has just been passed which will enable the Government to obtain a census of the defectives and epileptics in the community, and those cases who are a danger to themselves and to their surroundings can be dealt with by the Government in a manner most applicable to the mental grade and social condition of the patient. All

medical practitioners must notify cases of mental defect and epilepsy to the Board of Health, very much on the same principle as infectious diseases ; this law in effect makes the child a ward of the State. The scientific investigation into the condition of the mentality of the children and the causes of defect are not neglected. Dr. Goddard, a psychologist, is director of a research laboratory established at the Vineland School for Feeble-minded Children. He has investigated the mentality of the 400 children in that institution, and has modified the Binet-Simon tests (2), and tested 2,000 normal school-children as controls (3). At this laboratory the family histories of the children are elaborately investigated, trained field-workers are sent out from the laboratory all over the State and neighbouring States, who visit the homes of the parents and of collateral relations, and in many instances apply the Binet system of testing mentality during their investigations.

Dr. Goddard has found heredity to be the cause of defect in 65 *per cent.* of cases (4). Dr. Barr (5), at Elwyn, has studied family histories of over 4,000 cases of defect, and found heredity in 65 *per cent.* Dr. Davenport, at Cold Spring Harbour, Long Island, New York, is director of another eugenics laboratory, and he also is making extensive investigations.

Sterilisation of the defective, although not yet a question of practical politics, is yet legal in several States, and is strongly advocated in many quarters. In practice, so far it has been confined more or less to inmates of institutions, and it is claimed that the results upon these patients have been good, and they have become more tractable. The difficulty is to obtain absolutely reliable statistics of the effects on the individual, and Dr. Davenport has issued a leaflet to practitioners asking for information of the effects on patients of sterilisation for any cause. It must not be forgotten that sterilisation will not cure mental defect, and as the large majority of defectives are incapable of competing for a living with the normal individual, the State will be forced to look after these sterilised people; otherwise they will, as they are doing now, swell the ranks of the unemployable, and fill our prisons, and possibly also they will prove an active source of increased immorality. In large towns, backward schools and classes have been instituted, but this reform is of much more recent development than is the case in Britain.



In America they are thoroughly alive to the fact that the education of public opinion is, after all, the most reliable and lasting method of righting all the social evils which contribute to the production of degeneracy in the nation. The National Committee for Mental Hygiene had an exhibit, and gave a series of lectures at the International Congress in Hygiene and Demography, held this autumn in Washington, and, due to the public-minded spirit of an American citizen, this committee has been enabled to give free lectures, and show their exhibit in other large towns in America. After-care associations for the insane, also social service associations attached to asylums and hospitals, add their share to the education of the public, and in large university towns the gradual establishment of psychopathic hospitals, directed by experienced alienists, with their out-patient departments and well-equipped laboratories, cannot but be beneficial to the general community, and at the same time is of great value in the education of the medical student and of practitioners.

In conclusion, my thanks are due to my American colleagues for their unfailing courtesy and help, and to Dr. G. M. Robertson, Physician Superintendent of the Royal Edinburgh Asylum, for his kindness in granting me extra leave in order that I might visit these institutions in America.

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(1) A paper read by Miss Winifred Muirhead, L.R.C.P., at the Scottish Divisional Meeting held at Edinburgh on November 15th, 1912.

*The Forms of Mental Disorder occurring in connection with Child-bearing.*<sup>(1)</sup> By GEOFFREY CLARKE, M.D., Senior Assistant Medical Officer, London County Asylum, Banstead.

THE conception of puerperal insanity and of the mental diseases accompanying childbirth and lactation has undergone a considerable change during recent years.

A decade ago most of the text-books on insanity and midwifery described the mental disorders associated with reproduction as though they were entirely different diseases from those occurring apart from childbirth. To-day the pendulum has swung to the other extreme, and many of the more modern text-books do not devote even a short chapter to the so-called puerperal insanity, but they give pregnancy, childbirth and lactation as exciting or associated causes in many of the various forms of insanity, which they describe in detail.

There is no doubt that almost any form of insanity may first show itself during pregnancy or lactation; but there is also no doubt that some forms are far more frequently associated with these physiological states than others. There are also other questions to be considered: the advisability or inadvisability of having further children; the chances of the offspring inheriting insanity and certain very important medico-legal questions, such as infanticide, etc. These considerations make the insanity of reproduction worthy of a separate, if brief, chapter.

For some time past I have been collecting and making notes upon all the cases of insanity which I have met occurring during pregnancy, the puerperal period, or lactation; and although the number of cases is too few to warrant any definite conclusions, I felt that a short summary might be of interest to this meeting, and that some of the special cases, about which brief notes are given, would probably be supplemented from the experience of other members present.

In investigating these cases I have paid particular attention to the mental states, and I have endeavoured to classify them broadly into the groups of mental diseases which are now commonly recognised; where a case is very anomalous, and

I have been unable to satisfy myself of its true nature, I have omitted it altogether.

Cases arising during pregnancy and lactation account for just 5 *per cent.* of the female admissions in the time under consideration, those occurring in the first six weeks after delivery being of course far the most numerous.

The cases I have collected and recorded number seventy-five—too few, of course, to permit of any definite conclusions being drawn; and it should also be stated that all these patients were sent to a county asylum; therefore there is no record of the mild mental disorders which can be treated at home or in institutions other than asylums, nor is there any record of the severe septic cases which usually die or recover rapidly and do not get to an asylum.

Thirteen of the seventy-five cases arose during pregnancy, forty-seven in the puerperal period, and the remaining fifteen came on later than six weeks after delivery, but while the mother was still "nursing"; a heritage of insanity, epilepsy or alcoholism was noted in twenty-four instances, but in more than half the cases there was either no history or it was too defective to be of any value.

I will not weary you with a long table, but a few facts are worth noting, the average age on admission of the whole series was 30.5 years, the average of the pregnancy cases 30.1, puerperal 29.4, and lactational 34.2. I was rather surprised to find the average age in the puerperal cases as high as this. Twenty-nine of the cases occurred with the first-born, and all the rest with some subsequent child. Previous or subsequent attacks of insanity were noted in seventeen cases, but many of the histories were very defective, and doubtless this very much understates the true facts. A non-certifiable degree of congenital mental defect was noted in a good many cases. Illegitimacy is recorded in seven cases, but here, again, the true facts would probably show a greater number, as many patients call themselves married for social reasons.

Forty-four of the cases recovered, and three have every prospect of doing so. This gives a recovery-rate of about 63 *per cent.*, which is considerably lower than the expectation given in the text-books both on midwifery and insanity.

Some authorities lay great stress upon sepsis and anæmia

from loss of blood, and suggest the insanity may be due to a toxin. In the cases I have examined sepsis was only noted as a factor in a few, and in the majority of these it was mild, and rapidly cleared up without surgical interference. There were no deaths from sepsis.

In my opinion bacterial toxins play a very minor *rôle* in the "reproductive" insanities. Of course I do not for a moment deny that patients with a severe septic condition are commonly acutely delirious, just as are patients with typhoid, pneumonia, or other varieties of septicæmia; but this is quite different from other forms of puerperal insanity. The mental symptoms rapidly clear up before even all the toxins are eliminated, and whilst the patient may be still in a very exhausted condition, and there is no tendency to relapses or to future attacks. In puerperal insanity, on the other hand, morbid mental symptoms commonly persist for a considerable time after the physical health has been restored, relapses are frequent, and the disease often recurs either in subsequent confinements or at other times of mental stress.

If transient delirious states were held to have the same significance as other forms of insanity few normal people could boast of a good genealogical tree. The chief part that abnormal physical conditions play in the production of insanity is, in my opinion, either exhaustion, or the stress and anxiety caused to the patient by the feeling that all is not well. There is one other point in the causation which may be briefly dwelt upon, and that is that in the lactational cases, amongst the class of patients here dealt with, alcohol was very commonly an associated factor.

Women of the poorer classes usually nurse their babies for a prolonged period, partly from reasons of economy, and partly in the hope that they may postpone the evil day when the next conception occurs; they frequently indulge in alcohol, as they explain, "to keep up the milk"; and when they exceed in this direction they regard themselves as the innocent victims of nature, and have the comfortable feeling that they have only been over-zealous in the great cause of motherhood.

When the medical faculty can destroy the popular theory that milk is made from malt liquors, a dangerous excuse for self-indulgence will be wrested from the mother and the wet-nurse.

Varieties.	Occurrences.			More than one attack.			Recovered.			Died.			Unimproved.		
	Pregnancy.	Puerperium.	Lactation.	Pregnancy.	Puerperium.	Lactation.	Pregnancy.	Puerperium.	Lactation.	Pregnancy.	Puerperium.	Lactation.	Pregnancy.	Puerperium.	Lactation.
Confusional . . .	4	25	5	2	2	2	0	21	5	0	0	0	4	4	0
Manic-depressive . . .	4	13	6	2	3	4	3	11	5	0	0	0	1	3	1
Delusional . . .	2	4	2	1	0	0	0	0	1	0	1	0	2	4	1
Dementia præcox . . .	1	4	0	0	0	0	0	0	0	0	0	0	1	3	0
Imbecile . . .	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0
Epileptic . . .	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Volitional . . .	0	0	1	0	0	1	0	0	1	0	0	0	0	0	1

With regard to the classification, I am aware that we each have our own methods and ideas about the different varieties of mental diseases, and that there is no sharp line of distinction between many of the different functional psychoses; certainly no two of us here would agree about all the cases, but probably most of us would agree about the great majority.

In the short table I have compiled the classification given is made from the mental symptoms present on or soon after admission.

It will be seen that confusional insanity is a long way the most frequent in this series; it occurs in thirty-four cases, twenty-six of which recovered and eight remain in; in six of the cases there has been more than one attack. Of the cases remaining in, one or two proved to be really imbeciles, but this condition could only be detected after the acute confusional symptoms had subsided. Several more are well-marked cases of dementia præcox, whilst the balance are suffering from dementia of the colourless type. Although the prognosis in confusional insanity is good, there is always the danger that it may be masking other mental symptoms of far graver import. Manic-depressive insanity was noted in twenty-three cases; nine of these have had more than one attack, nineteen recovered and four remain in.

These four all remain subject to fairly frequently recurring attacks of excitement or depression with moderately lucid intervals. They show only a mild degree of dementia, but gradually become more institutionised.

Delusional insanity accounts for eight of the cases; only one of these recovered, one died and six remain in. In some of these cases symptoms appear to have really been present for years, but only rendered serious or dangerous by the advent of a child. In other cases the illness seems to have started with the altered feelings and impulses which arise during pregnancy, and to have remained and gradually become crystallised after the puerperium.

Dementia præcox was diagnosed in five cases and all these remain unimproved.

Two of the cases were obviously imbeciles; on admission their disease became more striking by their failure to adapt themselves normally to an ordinary physiological state.

Of the two cases of epileptic insanity one remains un-

improved; the other passed through an epileptic befogged state and the mental symptoms entirely abated.

The following are a few interesting cases:

A. T. F—; first cousin died in an asylum. Had had six children; with the first three she had no morbid mental symptoms, but had broken down with each of the last three.

First attack occurred at the age of 27, three months after the birth of her fourth child, which she was still nursing.

Second attack six years later whilst nursing fifth child.

Third attack at age of 37 whilst nursing sixth child.

All these attacks have been of the acute confusional type with much sensory disorder, vivid hallucinations of sight and hearing being prominent, her memory of the acute periods being very hazy.

She admits that both before and after her first attack she had been subject to recurrent periods of craving which were only satisfied by alcohol.

First two attacks cleared up in six and eight months, third has not cleared up, and she is subject to frequent attacks of confusion with gradually increasing dementia.

*Manic-depressive insanity.*—S. E. G—; no family history of insanity or nervous disorder. First attack at age of 23, a week after birth of first child. Acute mania; was under treatment for three months. Her next two confinements were uncomplicated by mental disorder. Second attack occurred at the age of 29, a few days after birth of fourth child. Acute mania; was under treatment for six months. Third attack occurred at the age of 43, whilst carrying eleventh child. Acute melancholia; was under treatment for two months, discharged, and had an uncomplicated confinement outside. She attributes this breakdown to the loss of a favourite brother. Since then has been under treatment six times for attacks of mania and melancholia.

*Dementia præcox following a confusional attack.*—E. A— showed evidence of congenital mental defect. Father alcoholic. Married six years; had two miscarriages, both at second month. No other children. Attack came on quite suddenly at the age of 23, when two months pregnant for the third time. Very restless, confused and excited with hallucinations of nearly all the senses; ideas that she was followed about, attempts were being made to poison her, etc. Rapidly quieted down; was delivered of a full-time child. Since then has

remained in a condition of typical hebephrenia. Well aware of her surroundings, memory not grossly affected, but quite devoid of interest, energy or emotion.

*Volitional insanity—impulsive type.*—R. B—, æt. 34; one paternal aunt insane; mother committed suicide; one maternal aunt committed suicide; one maternal aunt had an attack of puerperal insanity, with homicidal impulses towards her child. One other maternal aunt died in an asylum. Patient's sister was insane, with suicidal impulses; was in an asylum for six years, but was discharged, and has been well for some years.

First attack occurred about the age of 20, and appears to have been of an hysterical nature. After a few days of illness, when she had feelings of general malaise, anorexia and headache, she became completely unconscious, and remained so for several days; there is complete amnesia for the whole of this period. She rapidly recovered with home treatment. A few months later, when cleaning some knives, she suddenly felt as if something rushed up her back to her head and then "snapped," and she had an almost uncontrollable impulse to cut her throat. She threw the knife from her, and by a great effort managed to resist the impulse, but it kept recurring to her for several days, and finally became so intolerable that she had to put herself under care. Was in an infirmary for a month, and after another month at home was quite well. She kept well for six years, and then an exactly similar attack with the same impulse occurred; she was again nursed at home, and recovered.

She was married shortly afterwards, and about four years later passed through a normal pregnancy and puerperium. She nursed the baby, and when it was five months old she was wheeling it out in the streets one day when quite suddenly she felt impelled to throw it under an electric car. She successfully resisted this impulse, but was much frightened and depressed by it. An intense mental conflict was set up, and she rapidly passed into a state of acute confusion, with hallucinations of nearly all the senses, and of this period she has only a very hazy memory. She was sent to the asylum, where she slowly improved, but during the last two years has had one relapse, with suicidal promptings. It is very doubtful whether lactation was an important causal factor in this breakdown. It is probable that always in the back of her mind there lurks the unexpressed fear that in some crisis she may be lacking in self-control,



and that her actions may be dominated by impulses which are entirely contrary to her normal self and wishes.

By some unconscious association the dominant impulse suddenly becomes released, but on this occasion she is in possession of an instinct even more powerful than that of life—the maternal instinct in full activity—and the suicidal has now become a homicidal instinct. The fact that she accidentally learned, when quite young, of one aunt's suicide and another aunt's homicidal impulse towards her child may have worked potently by way of suggestion.

I will not quote more cases in detail, although many of them show points of interest.

In some, for example in cases of illegitimacy, one feels convinced that the physiological changes produced by childbirth have little if anything to do with the mental breakdown.

A girl who realises that all creeds and conventions are in agreement about the enormity of her guilt and pictures herself becoming a social outcast or an object of pity for ever needs no further excuse for losing her balance.

In some the knowledge of past events acts as a permanent obstacle to recovery. A patient who murdered her child in a state of complete mental dissociation, now that she realises what has happened, vainly and ineffectually attempts to suppress the painful memory, with the result that there is a continual mental conflict with recurrent attacks of dissociation.

The conclusions that may be suggested from a study of these cases are :

(1) That almost any form of mental disease may be met with during pregnancy or lactation, but that by far the commonest varieties are the acute confusional and the manic-depressive psychoses.

(2) That in these two forms of mental disease the prognosis is as a rule good, but in other forms occurring at this time the outlook is not nearly so hopeful.

(3) That except in some cases of acute delirium there is no reason to think that toxic or hæmic conditions are important factors, but that the mental breakdown may be looked upon as a temporary failure of the mind to adapt itself to physiological but unusual conditions.

(<sup>1</sup>) A paper read at the South-Eastern Divisional Meeting held at Brentwood on October 1st, 1912.

*Urethritis in General Paralysis, with Remarks on the Exhibition of Hexamethylene-tetramine.* By HARVEY BAIRD, M.D., Periteau, Winchelsea, Sussex, Late Senior Assistant Medical Officer, Cardiff City Mental Hospital.

THE association of general paralysis with syphilis has probably been discussed with more frequency during the past two decades than any other subject relating to insanity, and probably the large majority of alienists now consider syphilis a *sine quâ non* in its causation.

There is, however, evidence to show that chronic urethritis plays some part in aiding the development of this malady, and the following observations have been made with a view of affording some proof of this statement:

A histological examination of the urethra was made in the cases of sixteen male paralytics and twelve male non-paralytics. The sections were made in the posterior penile portion of the urethra.

Normally the urethra should consist of a lumen lined by rows of columnar or cubical epithelial cells, arranged regularly. A basement membrane is next visible, then loose submucous tissue.

In chronic inflammatory states the following conditions may be seen: The lumen may contain desquamated and degenerate cells, blood, and pus. The epithelium may be proliferated, irregular, often there are finger-like processes, and there is a tendency for the cells to become squamous. There is proliferation of the connective-tissue cells of the submucous tissue, leading to dense fibre formation. In marked cases the lumen becomes very irregular.

Of the twenty-eight cases examined, one could pronounce only five cases as absolutely normal, and none of these were paralytics. Two were imbeciles (the only two imbeciles examined). Twenty-three of twenty-eight appears a large proportion to show evidence of past or present urethritis, but it must be remembered that Cardiff is a seaport town, and venereal disease is very common.

There is also the question as to whether an attack of gonorrhœa will always leave some pathological evidence.

Of the twenty-three cases showing signs of disease, seven paralytics and three non-paralytics were slightly involved,

six paralytics and three others had well-marked lesions, three paralytics and one non-paralytic very marked. Two non-paralytics, including the very marked case, were very old men. Five of the paralytics had required catheterisation, but only on five, four, four, three and one occasions.

It will be observed that the paralytics all gave some evidence of urethritis, and in more than half the condition was well marked.

There are several indications, other than pathological, of urethral lesions in paralytics. The frequency with which catheterisation is necessary is one, though muscular weakness is usually the primary cause. The usual occurrence is for distension to be noted as the result of paresis, and then when the catheter is passed narrowing of the urethra is found. I shall point out, however, that the administration of urotropin will very largely diminish the necessity for the catheter.

The actual presence of a urethral discharge is not so common, though more frequent than in other cases of the same age. I examined only once for this, and found three of nineteen affected. Again it is possible that urethral lesions may have some connection with the great preponderance of general paralysis in the married.

Of the paralytics admitted into Cardiff asylum in the last four years, 75 *per cent.* were married or widowed, and I previously found (1) 77 *per cent.* of 137 cases at Horton asylum. From the figures in the Sixty-fifth Report of the Commissioners, it appears that 78 *per cent.* of male persons between twenty-five and sixty-four in the general population are married or widowed, so that we may say that the proportion of married persons is the same amongst paralytics (1·2 *per cent.* are under twenty-five) as amongst the sane, or 20 *per cent.* higher than amongst direct admissions of the same ages into asylums. Now, considering that, although somewhat exceptional, there are a fair number of paralytics of practically an imbecile type, and therefore unlikely to marry, that several have possibly not married owing to contracting syphilis, and that many who are classified as single are probably leading irregular lives, it is evident there is a causal sexual association. I consider it extremely probable (2) that Ford Robertson's suggestion that marriage aggravates a urethritis, probably pre-existing, is correct. The original infection has an exacerbation, becomes

chronic, and possibly the female is also infected. In this connection I can recall a case at Wakefield asylum some ten years ago. A paralytic in a state of remission was discharged. Ere long he returned with a well-marked urethral discharge. Some months afterwards his wife was admitted suffering also from general paralysis.

I now pass to the action of hexamethylene-tetramine. Some years have elapsed since this drug has been advocated in general paralysis, and I understand it is used in several asylums, but as far as I am aware, there have not been published definite statistical accounts of its actions. During the last twelve months, hexamethylene-tetramine has been administered to male paralytics. At first some half-a-dozen were chosen, and the number has been increased until within the last few months all the cases are taking the drug, 10 gr. thrice daily. Lately potassium iodide, 10 gr. thrice daily, has also been given, but at different hours. As regards the beneficial actions of hexamethylene-tetramine, there is firstly its effect on the urinary tract. It is well known as a urinary antiseptic in cystitis, gleet, etc., and it acts favourably on paralytics with these affections. But what strikes one most is the effect it has in preventing retention of urine and the necessity for catheterisation. The following figures speak for themselves. At Cardiff, in 1909, twenty male paralytics were in residence. Of these, 6, or 20 *per cent.*, required the catheter on fourteen occasions. In 1910 the numbers were 4 of 36 on nine occasions, or 11 *per cent.*; in 1911, 8 of 43 on twenty-four occasions, or 18.5 *per cent.*; in 1912, until the end of May, no cases out of 32. Two cases requiring puncture are included as catheter cases. Further, of the somewhat numerous cases in 1911, I can only find record of one of those being on urotropin, and he required the catheter only on two occasions shortly before death.

As regards duration of the disease, observation over a longer period would be of greater value, but the cases alive at the end of May, 1912, show an average intra-asylum existence of fourteen months (this includes admissions of even a few days). In the statistical observation I published in 1905 (3), I found the average intra-asylum duration to be 13.9 months from admission to death (in 160 consecutive male deaths from general paralysis at Wakefield). It is obvious that several months must be added to the fourteen months the present cases have lived.

I do not wish to lay too much stress on figures in this matter, but it is my general impression that the administration of this drug prolongs the duration of the malady.

The next point to be considered is the effect on the number of seizures, and the number of cases having seizures. Again one must give figures for the various years. Thus, in 1909, 13 of 30 paralytics had one or more seizures on forty-nine occasions, *i.e.*, 43·3 *per cent.*; in 1910, 8 of 36 on thirty occasions, or 22·2 *per cent.*; in 1911, 19 of 43 on fifty-one occasions, or 44·2 *per cent.*; in 1912, until May 31st, 8 of 32 on twenty-two occasions, or 25 *per cent.*

There would appear to be a certain amount of benefit in the exhibition of hexamethylene-tetramine in preventing seizures, but much less marked than its benefit in other directions. I may say that in compiling these statistics I have not considered the number of convulsions in each attack, *i.e.*, I consider a paralytic having one or two convulsions, and another having *status epilepticus*, providing it occurs in one day or one night, each as only one occasion, as also a paralytic attack without epileptiform manifestations. It may be of interest here to remark that I exhibited the same drug for five months on three female epileptics with the following result. One of the cases has usually more fits than any other in her ward, another has frequent fits, and the third eight or nine per month.

*Number of Fits per Month.*

	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.
A	17	29	31	43	37	20	30	41	48	39
B	14	11	16	24	18	19	12	15	16	18
C	5	3	5	17	13	4	8	0	15	11

They had 10 gr. thrice daily from November 1st to March 31st, except for about ten days in March, when drugs were delayed by the railway strike. It is obvious that there was little effect.

A bacteriological examination of the urethra was also made on 21 paralytics and 13 non-paralytics. Careful precautions were taken to prevent contamination. Cultures were made on nasagar-agar in all cases, on broth in most, and some on blood-serum. In only 2 cases were the results negative, and curiously both were paralytics, and each had been on hexamethylene-

tetramine for some months. In 6 cases a Gram-positive diphtheroid was found, giving the reaction of the Ford-Robertson bacillus. All were paralytics. In 12 paralytics and 6 others a Gram-fast diplococcus was present. Streptococci were present in 3 paralytics and 1 other, Gram-negative cocci in 6 paralytics and 1 other, *Bacillus coli* in 3 paralytics, and in many cases Gram-positive cocci mainly in groups. The main points to be noted are the frequency of the Gram-fast diplococcus, and the presence of diphtheroids in several paralytics. Three of this six with diphtheroids were not on hexamethylenetetramine at the time of, nor previous to, examination; the other three were. I do not propose to discuss at any length whether diphtheroids have a causative influence in general paralysis. The organisms are frequently found on mucous surfaces, including the urethra, in non-paralytics. Murrell (4) in a recent article on gonorrhœal rheumatism, describes a case cured by a vaccine prepared from urethral diphtheroids. In this case the remnants of a gleet remained, but no gonococci were found. At the same time the frequency with which Ford-Robertson and others have found these diphtheroids in paralytics cannot be ignored. (5) He found them also in the urine or urethra in 23 successive cases of tabes, and states that a history of acute urethritis is obtained in 90 *per cent.* of tabetics. He also states that in three cases of tabo-paralysis the bacilli have been traced through the pelvic lymphatics to the posterior root ganglia. To my mind diphtheroids in the urethra must much more readily get into the system than from other mucous surfaces on account of the deficiency of lymphoid tissue in the walls of the urethra. The alimentary and respiratory tracts are constantly exposed to all sorts of organismal infections, and are well supplied with lymphoid tissue, but while the healthy urethra does appear in most cases to have some organisms present, it cannot be said to be exposed to pathogenic infection, and hence, when that infection does occur, absorption of organisms or toxins must more readily occur than in alimentary or respiratory infections.

The evidence of the association of previous urethritis with general paralysis may be summarised thus:

- (1) Direct histopathological evidence of disease by *post-mortem* examination of urethræ.
- (2) Clinical evidence—urethral discharges, difficulty of

micturition, the finding of narrow urethræ when catheters are passed.

(3) The beneficial action of urinary antiseptics, general as well as local.

(4) The presence of diphtheroids in cultures made from the urethra.

One may conclude by offering a few general remarks. The statement is frequently made, and often by asylum officers, that all the research that has been done on the pathology, etc., of insanity has been practically useless in increasing the recovery-rate. This is probably true, the recovery-rate being, if anything, slightly on the decrease; but it is more to be expected that the results of research will be of benefit in diminishing the admission-rate. The present Mental Deficiency Bill will probably in after years result in this way. But, while attention is paid at last to the effect heredity has in producing defectives, nothing is done to diminish the effect of venereal disease.

Recently much has been heard of preventing the power of procreation by persons discharged from asylums, but, according to recent papers by Clarke (6) and Daniel (7), an exceedingly small diminution in the admission-rate would result. In fact, applying Clarke's figures to Cardiff for an example, that city would have a fraction over one admission per annum saved. Now, observe the effect of venereal disease. In 1910, in Cardiff, 28 of 197 admissions of both sexes were paralytics, and doubtless syphilis was associated with several other cases. In the Sixty-fifth Report of the Commissioners in Lunacy, general paralysis forms 16.4 *per cent.* of the male admissions.

It is surprising, considering how long the evil effects of syphilis in causing mental and other diseases have been known, that of recent years there has been nothing practically done in the way of prevention, while there has been an energetic crusade against tubercle. Many valuable suggestions, including compulsory notification, are made in a recent article, "Should Venereal Diseases be Notified?" in the *Practitioner* (8). It is the duty of alienists to impress on the public the effect these diseases have on insanity, just as much as it is their duty to advise against unsuitable marriage, etc., and to agitate, as Sir J. Barr advocated in his presidential address to the British Medical Association this year, for a combined international effort to stamp them out.

## REFERENCES.

- (1) and (3) "Statistical Observations on General Paralysis," *Journal of Mental Science*, July, 1905.  
(2) and (5) "The Infective Foci in General Paralysis and Tabes," *Journal of Mental Science*, October, 1910.  
(4) "Gonorrhoeal Rheumatism," *Practitioner*, January, 1912.  
(6) "Sterilisation from the Eugenic Standpoint," *Journal of Mental Science*, January, 1912.  
(7) "Some Statistics about Sterilisation of the Insane," *Journal of Mental Science*, January, 1912.  
(8) "Should Venereal Diseases be Notified?" *Practitioner*, July, 1912.

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Clinical Notes and Cases.

*A Case of Methæmoglobinuria followed by Multiple Neuritis* (<sup>1</sup>). By E. S. SIMPSON, M.D., Senior Assistant Medical Officer, East Riding of Yorks Asylum, Beverley.

ON the evening of May 28th last, whilst making the visit for my colleague at the time of the evening meal, I had my attention drawn to a patient's urine by the deputy charge nurse of the male infirmary. He said it was very high coloured. I looked at the urine, and instead of finding, as I expected, a concentrated urine loaded with urates, I had presented for my inspection a urine of a distinctly reddish-brown colour, very suggestive of the presence of some blood derivative.

This particular urine being spoiled for examination purposes by the presence of sputa, fresh samples were obtained the following morning and subjected to a chemical examination. The specific gravity was 1036, the reaction acid, and there was a deposit of amorphous urates. Under the microscope were to be seen a very occasional abnormal blood-disc, an occasional white corpuscle, and several epithelial cells. The chemical tests for pus, sugar, and for blood were all negative, and only the smallest trace of albumen was indicated. This urine was subjected to spectrum analysis by Dr. Edward Turton, of Hull, and he pronounced the blood-pigment to be methæmoglobin.

The subsequent history of the case is interesting.

The urine contained blood-pigment in gradually diminishing quantity until June 16th, after which there was apparently no pigment



present. On June 6th the patient was noticed to have developed a considerable degree of bilateral muscular weakness affecting the muscles of the upper arm, notably the biceps, deltoid and pectoral muscles, and in the lower limb, the extensor muscles of the thighs.

There was tenderness on attempted movement of these muscles and the knee-jerks were completely absent. The plantar and other superficial reflexes were normal and there was no ankle clonus. The pupils were normal both in the reaction to light and for accommodation.

The response to tactile sensibility and to pain and heat or cold was present, but much delayed.

The patient perspired profusely. The condition was diagnosed as a multiple neuritis.

It differed from the general form, however, in the seat of the trouble, which most commonly affects the muscles of the forearm and leg.

The muscular weakness gradually increased until it became paralysis, and the patient was unable to feed himself or move his position in bed to any great extent. On the night of June 7th he had an attack of acute dyspnoea with coughing, and after the spasm of coughing a brief syncope. The patient told me that he "felt as if he were going."

The examination of the urine was carried out daily, and on June 20th evidence of advanced renal cirrhosis showed itself in the presence of urine of low specific gravity, 1.012, a fair quantity of albumen, and numerous tube-casts from the kidneys. By this time the muscular paralysis was profound and wasting was apparent in the affected muscles. On June 24th evidence of pulmonary congestion showed itself and with it a failure of the heart's action.

On the 26th he was obviously sinking, said himself he was dying, and the end came at 6.30 that evening.

Throughout the course of his illness he had occasional pyrexia in the evening. All the time his skin was very moist, sometimes the perspiration being profuse.

The complete history of the patient previous to the commencement of his fatal illness is briefly as follows:

By trade he was a chimney-sweep, and two years before his admission he had had a severe attack of influenza; was in bed three weeks, and suffered much from pains in his head. He appeared to make a good recovery, but often complained of a tapping on his head when tired after a hard day's work.

Mental symptoms showed themselves a month before admission.

He was admitted on August 19th, 1909, suffering from acute mania.

The physical examination revealed a hypertrophied heart, sclerosed arteries, evidence of slight pulmonary tuberculosis, a congenital dislocation of the right hip-joint, and numerous ossified muscular insertions in the lower limbs.

The urine was apparently normal.

As the patient was acutely excited and frequently impulsively violent, sulphonal was administered, gr. 30, in hot milk, at 6 p.m. This was given for ten days without intermission, the patient being kept in bed and his bowels freely opened by white mixture.

His diet was entirely milk.

Thereafter the sulphonal was given on alternate days until he had been in the asylum for a month, when the acute phase had passed, and the sulphonal was dispensed with entirely. The patient was still in bed.

He was then got up and transferred to another ward, and put on ordinary diet. He was there for a month, and from being quiet and fairly orderly he became once more very restless, confused, noisy, and impulsive, with accompanying destructive habits.

Sulphonal was again exhibited, gr. 30 as before given on alternate days, the patient having mist. alba as previously, and being kept in bed. He was on a liberal diet on this occasion.

After a fortnight he became quiet, he was got up, and removed from the infirmary.

During the remainder of his residence he had numerous similar maniacal attacks, for which sulphonal was given every day for a week, and then none for a period of four weeks.

During one period he was so well that he went for four months without any sedative. This was in 1911.

For four days before he became ill he was given sulphonal 30 gr., having been particularly impulsive and troublesome. On the fourth day he complained of not feeling well, was reported to be very constipated, not having had his bowels moved for several days, and was transferred to the hospital, where the administration of a simple enema had a satisfactory result.

On the following evening the unusual colour of the urine was noticed, and the subsequent course of his illness has already been stated.

Under the impression that the pigment was hæmotoporphyrin, sodium bicarbonate was administered. Later on liquor arsenicalis was added, and during the exhibition of this drug the urine cleared rapidly, but whether this was a consequence or a coincidence I am not prepared to state.

Perhaps it pointed rather to a failure on the part of the kidneys to eliminate the pigment.

The bowels throughout the illness acted freely and the stools were not abnormal in their appearance.

A *post-mortem* examination was made on the following day, sixteen hours after death. The naked-eye appearances were briefly as follows:

The brain was of average size and weight. The dura mater and pia-arachnoid mater were both much thickened, but the latter peeled easily from the cortex.

The convolutions and grey matter appeared normal. The brain, as a whole, however, was congested and oedematous. The lateral and fourth ventricles were normal, and their ependyma was smooth. The basal ganglia in each hemisphere were paler than normal, but there was no gross lesion. The pons, medulla and cerebellum were to the naked eye normal. The arteries of supply and their branches showed considerable sclerosis.

The heart was much enlarged, weighing 13½ oz. The aortic, mitral and tricuspid valves were incompetent; the right ventricle was in a state of advanced fatty degeneration, and the left ventricle much hyper-

trophied. The right lung was adherent to the parietal pleura ; on section it was found to be in a state of active hyperæmia. There was some obsolescent tuberculosis in the apex, and the bronchial glands were enlarged. The left lung showed much venous congestion, considerable œdema, and in the upper lobe were several small areas of consolidation caused by grey tubercles.

The liver was congested and slightly fatty. There was one gall-stone in the gall-bladder. The spleen was inflamed, enlarged, and its substance almost fluid in consistence. The kidneys showed advanced and chronic cirrhotic changes as well as venous congestion of more recent origin.

The urinary bladder was normal. The stomach and duodenum were normal in appearance. The jejunum and ileum, however, were distinctly inflamed, and had numerous small submucosal hæmorrhages, and also an excess of mucus on the surface of the mucous membrane.

The large bowel was normal.

The question at once suggests itself—"What caused the hæmoglobinuria?"

Was it due to sulphonal poisoning, or must some other cause be assigned?

The term "hæmoglobinuria" is used to denote the condition where there is present, in the urine, blood-colouring matter with few if any of the corpuscular elements. The pigment is present either as oxyhæmoglobin or as methæmoglobin. There are two clinical groups of the condition hæmoglobinuria.

The first is toxic hæmoglobinuria, induced by poisons which cause rapid destruction of the blood-corpuscles, such as carbon monoxide, arseniuretted hydrogen, muscarine, potassium chlorate in large doses; also the poisons of scarlet fever, malaria, yellow fever, purpura hæmorrhagica and syphilis.

Included in the toxic group is the epidemic hæmoglobinuria of the newly born, a condition Osler considers an acute infectious disorder. The other group is the paroxysmal hæmoglobinuria, associated in some cases with Raynaud's disease and in others with exposure to cold.

In none of the various text-books can I find sulphonal described as causing hæmoglobinuria. It is always hæmatoporphyrinuria.

Sulphonal in poisonous quantities certainly exercises a destructive influence on the blood-discs, but can one apply the term "poisonous dose" to 30 gr. daily for four days?

Further, when one considers the number of times that the patient had had as much or more sulphonal on previous

occasions without untoward results, it seems unlikely that this last occasion of administration should be followed by such disastrous consequences.

It is possible that all the time it had been acting harmfully on the kidneys, and finally they became incapable of eliminating the drug in the urine as formerly.

If one excludes sulphonal as a cause it is certainly difficult to know where to look for one. Speaking in vague terms, I might venture the opinion that it is possible the hæmoglobinuria was due to some toxin generated in the body—probably in the intestinal tract. There certainly was evidence in the inflamed intestine and fluid-like spleen of the presence of such a condition. The other problem is—"What induced the neuritis?"

There are definite records in the literature of a multiple neuritis due to large overdoses of sulphonal apart altogether from the ataxia and motor weakness which all asylum medical officers are familiar with.

But in view of the fact that this patient had phthisis, not very advanced certainly, but undoubtedly phthisis, it is worthy of note that there have been cases of multiple neuritis described as complicating phthisis; not a tuberculous neuritis, as no tubercles have been found in the nerve-trunks, nor have the tubercle bacilli been isolated from the nerves. The condition is due rather to the grave constitutional affection leading to loss of vitality in the nerves as elsewhere.

There are two problems, gentlemen, on which I hope to receive some light: What caused the hæmoglobinuria? What gave rise to the neuritis?

For myself I am inclined to doubt that the patient's last illness was due to sulphonal alone. I should say that it certainly played a part; whether as a direct poison to the blood-corpuscles or indirectly by a harmful action on the kidneys leading to cirrhosis and resulting insufficiency I am not prepared to say.

But if the former, why did the pigment not take the form of hæmatoporphyrin and not that of methæmoglobin?

I am of opinion that also there was some toxic agent at work, not introduced from without, which carried on the changes begun possibly by sulphonal.

I report this case because it is associated with a drug so

widely and so largely used as sulphonal, and also because, so far as I can ascertain from the records, it is the only case of its nature arising in the history of the East Riding Asylum—a period of forty-one years.

(<sup>1</sup>) A paper read at the Autumn Meeting of the Northern and Midland Division held at the Lincoln Asylum, Bracebridge, on Thursday, October 24th, 1912.

*Leucocytosis produced by the Injection of Normal Saline Solution.* By WILLIAM BOYD, M.D., M.R.C.P.E., Dipl. Psych., Pathologist, Lancashire County Asylum, Winwick.

IN the July number of the journal Drs. Dods Brown and Ross give an account of the various methods which have been used to produce an increase in the number of leucocytes in the blood. These methods are numerous and varied, but they do not include one which was discovered accidentally in the treatment of the case about to be described, nor have I been able to find any reference to a similar case in the literature. Various drugs such as nucleic acid, ceredin and argentinum colloidal have proved efficacious, and Dr. Lewis Bruce has stimulated the leucocytes by the injection of such an irritant as turpentine. In the present case, however, the simple intra-venous injection of normal saline solution, containing no drug whatever, was found to produce a marked leucocytosis, which in one instance reached the high figure of 28,000. For permission to publish the notes of this case I am much indebted to the kindness of Dr. T. C. Mackenzie.

The case is as follows:

On September 14th, 1911, J. M—, female, æt. 37, was admitted to the Inverness District Asylum suffering from acute excitement with confusion. Her temperature on admission was 99° F., but soon returned to normal, where it remained during the greater part of her illness, at no time rising higher than 99·6°. On many occasions, however, it was impossible to take her temperature, owing to the violence of the excitement. She was in poor physical health, showing evidence of gastro-intestinal disturbance, and during the time she was under observation she rapidly lost weight and became greatly emaciated. Her mental condition was typical of acute confusional insanity: there was great excitement and considerable confusion, disorientation was complete, and hallucinations, both visual and auditory, were very well marked.

Repeated injections of 40 oz. of normal saline solution were given by the rectum, but produced little or no benefit. As she was evidently

suffering from some form of toxæmia, it occurred to us that an intra-venous injection of normal saline solution might prove of benefit. The median basilic vein was accordingly opened, and 40 oz. of '75 per cent. saline solution were run in. At the time of the injection, which was done in the morning, the leucocytes numbered 9,500. That same evening the number had risen to 15,400. She was a good deal better mentally, the excitement lessened, and she slept well. Next day her leucocytes had returned to 9,000. Five days later she was again transfused with 40 oz. of normal saline, and this time the leucocytes rose from 10,000 to 28,000. The leucocytosis was polymorphonuclear in type. As it was impossible to continue opening the patient's veins, the next injection, 70 oz. in amount, was given into the breast. The result was another slight mental improvement, accompanied by a leucocytosis of 13,400. On two subsequent occasions saline was again given by the breast, without any mental benefit, however, the leucocytosis being only slight in each case. Numerous injections of saline were given by the rectum throughout the patient's illness, but these never produced any effect on the leucocytes. The patient gradually lost strength, became extremely emaciated, and died on January 28th, 1912, the excitement continuing until the end.

To sum up: normal saline solution was given in three ways and with correspondingly varying results. When given intra-venously it produced a well-marked leucocytosis, when given subcutaneously the leucocytosis was slight, and when given by the bowel there was no leucocytosis. The degree of mental improvement produced bore a relation to the intensity of the leucocytosis.

I record this case in the hope that others, who may be adopting the treatment of cases of excitement by means of the injection of saline solution, will make further observations on the behaviour of the white blood-corpuscles.

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*Morphino-Mania with Suggested Visual Hallucinations.* By P. J. DWYER, M.B., Assistant Medical Officer, Richmond Asylum, Dublin.

P. G—, æt. 40, admitted January 9th, 1912, on a charge of assault; had been a sailor for many years, during which period he contracted the morphia habit. Since 1884 he had been taking the drug, gradually arriving at the stage previous to admission, when he was taking 15 gr. a day. The largest dose he ever took was 15 gr., followed in an hour by 10 gr.

He was an emaciated, miserable specimen of a man on admission, quite cachectic, and positively a mosaic with needle punctures. So hard was his skin on portions of his body that a needle could not be driven in without breaking.

His pupils were very small and the right knee-jerk was exaggerated.

He told me that he had an old prescription for a small dose, which he got made up in different chemists' shops, thereby getting a goodly

supply when he required it. He had about 20 gr. with him and a syringe.

Arising out of this, I certainly think that there should be a law prohibiting chemists from selling morphia in any form, unless on a prescription dated by the physician on the particular day of sale. Also I would suggest that the prescription should be stamped by the chemist first selling it, and that no other chemist should supply it on that particular prescription, unless under extraordinary circumstances. These precautions, I think, would speedily lessen this pernicious and, alas, too-fashionable habit nowadays.

To continue, our patient had persecutory delusions, and he had both auditory and visual hallucinations. Regarding the latter there is a point of great interest, namely that his wife had visual hallucinations and imparted them to him. I may add that she was not addicted to morphia.

He told me that whilst in his room he used to see pictures flying in through the window and going on the wall, and that there often appeared doors where there were no doors. The room often became dark, and he used to see an old woman there.

He admitted that he never saw these things, although he had had auditory hallucinations previously, till they were pointed out to him by his wife. At first he said he couldn't see anything but gradually he began to see them, and he firmly believed in them until a few months before discharge, when he lost both delusions and hallucinations. His wife, when interrogated, admitted having visual hallucinations. I suppose the explanation of the suggested visual hallucinations was that the patient's brain was in a condition of semi general disassociation of neuron groups, owing to their becoming highly resistive to nerve currents, and consequently suggestion was an easy accomplishment. The auditory hallucinations were probably explained by the toxic condition of the blood acting on the sensory tracts and cortical centres, thus causing a change in the neurons. Oxymorphone was the poison in question.

We started treating the patient by the slow method, as we had previously got such good results by using it, and also because it is certainly the more humane treatment. I believe that if we had tried the rapid method in this case, and in a previous one, both would have died from marasmus. During this treatment we tried to substitute hyoscine hydrobromide and dionin, but found they did not give good results. When the doses of morphia were becoming very small, we assisted the patient by giving him fairly large allowances of stimulants. The day after admission he got 10 gr. of morphia acetate, and the dose was lessened gradually until June 15th, when he merely got injections of normal saline solution flavoured with a very small amount of laudanum. This latter was added as patient used to taste it before injecting. He, of course, during all this time had both the morphinic euphoria and the feeling of desperate abandon some time before he got the injection. Strange to say, he always complained of being "cut" in his dose on a day when it was not so, and when "cut" he did not appear to notice it.

This slow method of treatment may be trying and tedious, but

certainly in this case the end justified the means. He remained with us until September 19th, and worked very well and arduously, not feeling the want of the drug in any way whatsoever.

He confessed to his joy and thankfulness at being freed from a habit which at one time transported his mind into a land of dreams, and at another time plunged him into the depths of misery, abandon and despair.

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## Part II.—Reviews.

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### *The Sixty-sixth Report of the Commissioners in Lunacy for England and Wales, 1911.*

The total number of certified insane persons under care in England and Wales was on January 1st, 1912, 135,661, having increased by 2,504 in twelve months.

The *private class* numbered—males 4,816, females 6,320, both sexes 11,136, showing an increase of nearly 2·3 *per cent.* An examination of their distribution reveals a decrease in the number cared for in hospitals and licensed houses, which is more than balanced by the increased numbers (6·5 *per cent.*) in public asylums. About 2 *per cent.* of the latter cases annually arise by being transferred from the pauper class.

The *pauper class* comprised 123,400 cases, being males 57,455, females 65,945, or 91·0 *per cent.* of all the reported insane. Although this is 34 below the mean annual increase for the past ten years, it is 175 above the average annual increase for the five years, 1907-12. As regards distribution, there is a tendency to increased numbers cared for in asylums with a corresponding diminution in those for whom provision is made elsewhere.

The *criminal patients* numbered 1,125, being males 857, females 268—an increase of 3 *per cent.* males and 1·9 *per cent.* females during the twelve months. The number housed in county and borough asylums now amounts to 20 *per cent.* of the total number; last year it was 18·3 *per cent.* The regrettable association of criminal and the ordinary insane in public asylums not only continues but flourishes. When political strife will permit of the Mental Deficiency Bill or some such measure becoming law, perhaps more suitable housing will be found for the weak-minded criminal.

By the kindness of the Registrar-General the Commissioners have been able to make use of the results of the 1911 census in the preparation of such tables as II A, Appendix A, showing the *ratio of pauper insane to the population in the various administrative areas.* The ratio of pauper insane to the whole population was 3·41 per 1000, an increase of ·38 per 1000 in ten years. Some 19 administrative counties (out of 63) have a ratio above the mean for the whole population. London is the highest of these with 5·97, and Cardigan the lowest, being 4·01.



No less than 44 show a ratio below the mean, some being very low, such as Durham with 1.74, Derby 1.90, Yorks, West Riding, 1.96. Of the county boroughs, 29 are above the mean, Brighton being 6.51 and Canterbury 5.44, while 45 others are below the mean ratio, the lowest being Blackpool 1.85 and Southport 1.86. The causes of this disproportion as regards popular seaside resorts like Brighton, Blackpool and Southport would prove an interesting topic of discussion between their rival admirers.

The *comparative statistics of the insane and general population* is always one of the most important paragraphs in this report. The number of insane for the year under review, 135,661, is an increase of 269.0 *per cent.* since 1859, as compared with an estimated increase of population of 85.6 *per cent.* The general population increases by fairly regular increments year by year, but insanity advances less steadily. The percentage increase in lunacy for each decennium since 1859 dropped from 44.6 in 1869 to 31.4 in 1879, 20.7 in 1889, 24.6 in 1899, and 22.5 in 1909. The yearly increase since 1902 has varied from 2.9 in 1903 to 1.4 in 1910, while during 1912 it has been 1.9. For the ten years ending 1912 the increase has been 22.5. As compared with the population, in 1912 there were 37.12 insane for every 10,000 of the population—an increase of 0.3 *per cent.* on the preceding year and of 10.4 *per cent.* since 1902. The ratio for all insane has increased in 53 years by 98.8 *per cent.*

As regards *annual admissions*, the ratio they bear to the population has continued to fall since 1902, being 6.06 in 1911.

Again we have to point out that the Commissioners do not attach as much importance as one would expect to the strong tendency shown for the *first admissions* to decrease in ratio to the population since 1902. The ratios for 1911 are males 5.09, females 4.98, as compared with males 6.01, females 5.53 in 1902, though, as the Commissioners point out, the admissions for the latter year were exceptionally heavy. As regards all the admissions some encouragement is found in the fact that whereas the advance in population between an estimated average of 1902-6 and that of 1907-11 is 5.3 *per cent.*, and on the same basis of comparison the number of insane shows an increase of 9.6 *per cent.*, there has, as regards the admissions, been no increase at all, but a decline. Thus, the yearly average of admissions for 1902-6 was 22,129, that for 1907-11 was 21,927, a decrease of 202 per annum. Without laying undue stress on these figures, the Commissioners attach some importance to them, especially as they are based on a mean of five years.

In our review of the Commissioners' report for 1911, we expressed regret that figures were not available based upon the commencement of the first attack. We note that this year the Commissioners express an opinion that "first admissions" are not necessarily synonymous with "first attacks," the numeration of which is the only true criterion of "occurring insanity." They add the interesting fact that from their returns since 1876 "first attacks" amount to about 74 *per cent.* of those annually admitted into institutions.

It would be interesting (though apparently impossible to accomplish) if these cases could be allotted to their proper years and then a comparison with the population made.

We think that, by the outside world, too much importance is attached to the increase in the number of patients under care, which fact is capable of some explanation, and too little to the fact that, though statistics are unavoidably imperfect, there is no evidence forthcoming that more people are becoming insane in comparison with the population; indeed, there is hopeful evidence to the contrary. The position is still more encouraging when it is remembered that the standard of mental efficiency demanded by the world increases year by year.

In the two previous reports *statistics of continued detention* (section 38) are given and commented upon. This year a further analysis is made by dividing the several admissions into four age-periods, and by assigning under each period the proportion of those cases whose certificates were not continued. An excerpt of Table XXVIII, Appendix H, dealing with this subject, shows as follows :

Of every 100 people admitted in the year 1909.	Age on admission.			
	Under 25.	25-44.	45-64.	65 and over.
Recovered within two years	37	37	30	13
Died within two years	9	16	27	53

The number of cases *admitted* during 1911 was 21,906, of which 18,191 were *first admissions*. The *daily average number resident* was 107,862.

The *recovery-rate* reckoned upon the total admissions was—males 28.92, females 37.59, both sexes 33.44, being 2.66 below the percentage for the decade 1902-11 inclusive.

The *death-rate* reckoned upon the daily average number resident was males 10.38, females 8.40, both sexes 9.32 *per cent*.

A study of the *age distribution* in the insane shows a remarkable predominance of the insane (excluding idiots) under care after middle life in comparison with the same age-period of the general population, over the proportion at all ages, and at twenty-five years and upwards. This may be explained by the accumulation of chronic cases.

In this connection we cannot refrain from commenting on the fact that although of the total population living 51 males and 53 females *per cent*. are under twenty-five years of age, yet Table XX shows that of the first attack admissions (idiots excluded) for four years only 13 *per cent*. occurred during this period. Adolescence would therefore not appear to be as fruitful a cause of insanity as is commonly held.

The causes and forms of insanity and other matters of interest are this year analysed from the point of view of *sex*. The census figures for 1911 show a mean distribution for England and Wales of 48 males to 52 females for every 100 persons living. The sex distribution of pauper lunatics is 47 males to 53 females. Attention is drawn to the fact that in ten counties and twenty-four county boroughs and three other boroughs the male pauper insane exceed the female. The proportion of males and females of the general population in the same districts varies: in some the males predominate, in others the females. The districts where there are more men and more male lunatics include

mostly mining and manufacturing centres, industries which also prevail where the sex distribution approximates the mean of the whole country, but where the number of male lunatics may even be greater than in the former. The prevalence of general paralysis in the male is considered, but this is not held to be a sufficient explanation for the divergence. Other factors we would suggest are alcohol and the pursuit of riches and pleasure.

As regards *age* and *sex*, although females markedly predominate at 65 and upwards in the general population, the predominance of the female insane in institutions at this age-period is still more striking. Those admitted, however, at this age bear a proportion of 49 males to 51 females, which is the same as for all ages in first attack admissions.

The *form of insanity* in relation to sex is next discussed. The necessarily imperfect classification of insanity detracts much from the value of the Commissioners' observations. Briefly 51 is taken as the mean female ratio for all cases. The female proportion was less than this in general paralysis (15), organic brain disease (36), epileptic insanity (44), senile dementia (48), primary dementia (50). Delusional insanity was the same; on the other hand 51 was exceeded in recent mania (55), confusional insanity (56), recent melancholia (60), stupor (61), and acute delirium (64). The age-period in this connection is also considered.

The *causes of insanity* are dealt with in like manner. The same ratio of 49 males to 51 females is taken. Insane heredity occurred in 59 *per cent.* of the female admissions. This is in agreement with Dr. Mott's investigations. Alcoholic heredity in the same sex was 52, puberty and adolescence 56, sudden stress 65, prolonged stress 55. In the male sex, alcoholic excess was 68, syphilis 87, and injuries 80. As supplementary to this analysis, *form*, *cause* and *sex* are considered together in the female sex. Puberty and adolescence and the puerperium were prominent causes of recent mania and mental stress and the climacterium of recent melancholia.

Already our review has become lengthy and many matters remain of great interest which space forbids our commenting upon. The report, as a whole, becomes more interesting and readable year by year and covers a wider range of subjects, which greatly enhances its value. The reading of the reports of the visitations to the asylums is still wearisome to the flesh, though here and there may be gleaned facts of general interest. While not advocating their omission we would give a more cordial welcome to a *resumé* of the Commissioners' impressions of the general trend of administration, and especially of advances in clinical methods and care and treatment. It would be difficult, if not impossible, to gather from the Commissioners' reports in the past anything *like* an adequate idea of the (for want of a better word) revolution that has occurred in asylums during the past fifteen years or more and which is still going on, and no body of men should be in a better position to know and appreciate this than the Commissioners. The addition of a supplement dealing with scientific research was a decided step in the right direction, and we hope that the Commissioners will find it possible to place on record from time to time a critical estimate of the progress of psychiatry in the asylums of this country.

*Fifty-fourth Annual Report of the General Board of Commissioners  
in Lunacy for Scotland.*

The first portion of the report gives the usual statistical information, and shows that at the close of the year 1911 there were in Scotland (exclusive of insane persons maintained at home by their natural guardians) 19,034 insane persons officially known to the General Board of Lunacy, of whom 2,608 were maintained from private sources, 16,371 by parochial rates, and 55 at the expense of the State. This is an increase of 398 on the corresponding figure for the previous year. Among non-registered lunatics there was a decrease of 1 in the Criminal Lunatic Department of Perth Prison, and an increase of 39 in the training schools for imbecile children. Among registered lunatics, that is, those who are provided for in asylums, lunatic wards of poorhouses, and private dwellings, there was an increase of 360, due to an increase of private patients by 36, and an increase of pauper patients by 324. The number in establishments rose by 337, and the number in private dwellings by 23. Of the increase in establishments 36 were private patients, and 301 pauper patients. During the preceding five years the average annual increase of pauper patients in establishments had been 187, and therefore the increase of 301 during the year 1911 was considerably above the average increase for that quinquenniad. Taking pauper lunatics both in establishments and in private dwellings, decreases, amounting in all to 27, occurred in seven counties or urban areas, while increases, amounting in all to 351, took place in thirty counties or urban areas. The proportion of registered lunatics per 100,000 of the general population of Scotland is tabulated as 386 (private 51, pauper 335). This is 20 above the corresponding figure given in the previous report, the difference being due to the census of 1911 having shown that the general population in Scotland had increased since the preceding census by only about 6 *per cent.*, which is considerably less than the increase usually estimated for.

Exclusive of transfers from one establishment to another (the number of which was 339), the admissions to establishments during the year were 538 private and 3,023 pauper patients, total 3,561. The number of private cases was 32 more than the preceding year, but 21 less than the annual average for the quinquenniad, 1905-09. The number of pauper admissions was 217 more than in the preceding year, and 133 more than the average in the same quinquenniad, and is, indeed, the highest absolute number of pauper admissions to establishments in Scotland in any year, with the exception of the two years 1902 and 1904. Taking only cases admitted to establishments for the first time in their history, the number was 410 private and 2,283 pauper patients, this being an increase in both classes over the figures for the preceding year. The report states that "on the whole, with marked oscillations, there has been a general tendency to an increase in the proportion of all first admissions to the population from the year 1885 to the year 1902, where it remained stationary until 1904, after which there was a decline, until in 1909 the lowest recorded proportion [51.5 for private and pauper taken together per 100,000 of population] since 1891 was reached. The proportions for 1910 and 1911 again show an

upward tendency." Voluntary patients do not come on the register of lunatics, and are therefore not included in the figures given above. Of these the number admitted during 1911 was 119. As the average annual number admitted during the ten years 1902-1911 was 96, there seems to be a growing tendency to adopt the voluntary method of treatment; and the Commissioners remark that the power of receiving patients in this way is a useful provision of the law, which has not led to any difficulty in practice, and that the procedure for admission in these cases might with advantage be made even simpler and more rapid than it is at present.

The number of cases discharged recovered from establishments during 1911 was 210 private and 1,161 pauper, total 1,371, which gives, when calculated on the number of admissions exclusive of transfers, a recovery-rate of 39.0 *per cent.* for private and 38.4 *per cent.* for pauper patients. The number discharged unrecovered, again excluding transfers, was 140 private and 388 pauper, representing, when calculated on the average number resident, a percentage-rate of 6.0 among private and 3.0 among pauper patients. The deaths were 146 among the private and 1,179 among the pauper patients, being respectively 6.3 and 9.1 *per cent.* on the average number resident. In comparing these figures with those of former years it is seen that for the private patients the recovery-rate and the death-rate, though naturally oscillating somewhat from year to year, have kept near the same level for a long time, but that the rate of unrecovered discharges has tended to be lower in recent years. Among the pauper patients, the marked falling off which has been observed for some time past in the recovery-rate is still seen; the rate of unrecovered discharges is relatively much less than among the private cases; and the death-rate remains about the same as during the preceding ten years, though higher than the rate previous to 1900. This result among the pauper patients is doubtless due more or less to the increased tendency to place senile and broken-down cases under asylum care; but the report points out that the small proportion of unrecovered discharges is not wholly accounted for in this way, and is to be regretted as adding to the accumulation of cases in establishments.

Among the pauper cases provided for in private dwellings the following were the changes during 1911: Admitted 312, certified sane 22, removed from the poor-roll by their friends 24, removed to asylums 133, and died 110 (the death-rate being equal to 38 per 1000). Of the cases admitted, 132 were resident in private dwellings when first reported to the Board and remained under private care, and 180 were removed from asylums. At the end of the year the number of private patients provided for in this way was 116—the same as in the preceding year—and the number of paupers was 2,901, this showing an increase of 23 on the previous year, and being the highest figure hitherto reached. These are distributed in houses which are specially licensed to receive two, three or four patients, or in houses which take only one patient each and do not require a special license. Among the pauper patients 984 are placed with guardians who are relatives, and 1,917 with unrelated guardians. Of those provided for in specially licensed houses more than half are in houses which contain only two patients, and of the patients accommodated in houses containing three or four patients more than three-fourths are

females. It is evident that the success of this method of care, which provides for 16 *per cent.* of the insane persons who come on the register of the General Board, and which is in some of its features peculiar to Scotland, is due to the effective and tactful way in which the local care of the patients is supervised and brought up to standard by the central authority; and the report is able to say that, "generally speaking, the arrangements made for the care of the patients . . . can be warmly commended."

Much information is, as usual, given in the report regarding the expenditure on account of pauper lunacy in Scotland, and the various tables show the items of outlay in considerable detail. In the district asylums the charge for "providing expenses" or rent (that is, cost of land, buildings, and their upkeep, etc.) varies very much in different instances, according to time of building and other circumstances in the completion of the institution. When calculated per head on the average number of patients resident, it ranged for the year 1910-11 from £5 7s. 7d. to £36 14s. 11d., the average being £15 15s. 3d. There is much less difference in the "maintenance" expenses (food, clothing, and management of patients) in the different asylums; and the charge per patient under this head ranged from £22 6s. 8d. to £30 9s. 9d., the average being £26 9s. 1d. Putting the providing and maintenance expenses together, the average total cost per patient in district asylums was £42 4s. 4d. For pauper patients in Royal asylums, lunatic wards of poor-houses, and private dwellings, the item of providing expenses or rent does not appear separately, but is included in the general charge for maintenance. Taking all asylums (Royal, district, and parochial) together, and including institutions for imbecile children, the average outlay for maintenance per pauper patient was £27 5s. 9d.; in lunatic wards of poor-houses it was £20 14s. 7d.; and in private dwellings £18 16s. 11d. All over the average cost per patient was £26 2s. 5d. It has long been recognised that the absolute expenditure for lunacy purposes had increased greatly, on account of the much larger number of persons under care; but the figures given in the report show that there has of late years been also evidence of increase in the relative expenditure or cost per person.

In addition to the information summarised above the report makes reference to several points, of which the more important are as follows:

(1) *Accommodation for the poorer class of private patients.*—It has been urged for many years that power to provide accommodation for private patients, which has been possessed by the county lunacy authorities in England since 1890, should be given to District Lunacy Boards in Scotland; and it is unfortunate that the Amending Lunacy Bill (Scotland), which contained a clause giving this power, and which was before Parliament in the early part of 1912, has under the pressure of other legislative work had to be withdrawn. In England no restriction is placed on the rate of board charged for these cases, and it has been held that the same liberty should be given in Scotland; but there is much to be said for the view put forward by the General Board, that the charge should not be higher than the maintenance rate for pauper patients, with or without the addition of a sum in name of

rent (which also should be restricted to the net annual cost per head under the providing account). The object in providing such accommodation is not to lessen the burden on the ratepayers by the profits from keeping private patients, but to prevent burdens falling on the rates by removing the excuse for the acceptance of parochial aid; and it seems reasonable therefore that the rate should be restricted as mentioned, or should in any case not exceed the actual cost of providing for the patient. It would in fact obviate the necessity for a procedure which is at present often resorted to and found to be of great service, though not directly sanctioned by the Lunacy Acts—namely, the nominal placing of patients on the parochial roll in order to secure asylum treatment in the district, though the entire cost of providing for the patient is repaid from his funds or by his relatives to the parish without any actual parochial relief being called for.

(2) *Weighing of patients.*—Information is given as to the practice in different asylums in regard to ascertaining the weights of patients at admission and discharge, and at regular intervals during their residence in the asylum, and the importance and value of having the weights taken at intervals not exceeding one month are urged.

(3) *Restraint and seclusion.*—Since 1895 the superintendents of Scottish asylums have been required to send copies, quarterly in each year, of the entries in the register of restraint and seclusion, these entries giving the name of the patient, the character and duration of the restraint or seclusion, and the reason for which it was used. A review is given of these returns during the five years 1907–11, and comparison made with the corresponding returns for the previous quinquennials. This shows, with regard both to restraint and to seclusion, that the number of cases in which they are used is diminishing, and that in many institutions they are for long periods at a time not resorted to at all, or adopted only under very exceptional circumstances. In about one-third of the cases restraint was employed for surgical reasons; and with the insane it is unlikely that its use on this account can ever be completely dropped. Apart from surgical necessity, restraint is indispensable only very rarely, and with improved methods of treatment in other directions its employment may be expected to become less and less. The Board are able to say in their report that the reduction in the use of restraint and seclusion which has taken place during the last ten years has, so far as has come within their knowledge, been unattended by any drawback or disadvantage in regard either to the medical treatment or to the safety of the patients or others.

(4) *Superannuation Act.*—In the review of the report for 1910 it was stated that the provisions of the Superannuation Act had been interpreted and applied in very varying ways in different institutions; and in one of the appendices to the present report a circular letter is printed, giving the opinions of Crown counsel on a number of questions which have arisen in practice in this connection.

(5) *Post-graduate curriculum and diploma in psychological medicine.*—Reference is made to the action of the Medico-Psychological Association in seeking to secure post-graduate instruction and the establishment of a diploma in psychiatry, and to the steps taken by Edinburgh and other universities in connection therewith; and the

Board express their warm approval of, and sympathy with, the scheme which has been formulated for this purpose.

While the report was in preparation, Mr. John Alexander Reid, one of the legal Commissioners on the Board, died, and his place is now taken by Mr. John Wilson, K.C., Sheriff of Renfrew and Bute. Dr. J. F. Sutherland, the senior Deputy-Commissioner in Lunacy, and a valued contributor to our Journal, died on December 30th, 1910, and has been succeeded by Dr. Cunningham Brown. Mr. T. W. L. Spence, who had been connected with the Board for forty-seven years, and was during the latter twenty-three years of that long period its secretary, retired in the end of 1911. His wide knowledge of lunacy law and work, his sound judgment, and the courtesy and assistance which he extended to all concerned in lunacy administration, had earned for him the high appreciation and regard of his fellow-workers, not only in Scotland, but also in England and elsewhere. The vacancy in the secretaryship caused by his retirement has been filled by the appointment of Mr. A. D. Wood, J.P.

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*Sixty-first Report of the Inspectors of Lunatics (Ireland) for the Year ending December 31st, 1911.*

This report contains some matter of special interest over and above the usual review of routine lunacy statistics. The question of the local distribution of insanity in Ireland, and the bearing of such conditions as density of population, pauperism, emigration and alcoholism on its causation and distribution is ably discussed. It will be remembered that this question formed the subject of Dr. Dawson's deeply interesting Presidential address at the commencement of his year of office in July, 1911, and, as it is one which has undoubtedly a general as well as a professional interest, it was an admirable idea that the main facts and deductions brought forward in that address should thus reach a much wider audience than they otherwise would have done. The conclusions arrived at as regards these several points are, first, that there is no appreciable connection between the distribution of insanity and density of population; but that on the whole, although there are a few exceptions, insanity tends to prevail more in the agricultural and rural districts than amongst urban communities. The eight counties which have the highest proportion of insanity are all rural districts, Waterford holding the unenviable position of heading the list with a ratio of 9·2 of insane per 1,000 of population, while the counties of Down and Antrim, which include the large industrial centre of Belfast, give a proportion of only 2·6 and 4·7 respectively. It will be noted that the province of Ulster gives a much lower ratio (4·2) than the other provinces, Munster and Leinster being nearly 50 *per cent.* higher with ratios of 6·1 and 6·0 respectively, and Connaught 5·2. Dublin comes about half-way down the list (5·9), for which the fact that vagrancy tends to gravitate towards capital cities is suggested as an explanation, as the same tendency probably operates likewise in the case of insanity. That agricultural communities are more prone to insanity may be explained,



in part at any rate, by the fact that the rural mind, as a rule imperfectly educated, functions within narrow limits. In time of stress or trial of any kind it has not the resources within itself which educated and cultured minds possess, and which act to a large extent as an antidote to mental instability, whether it takes the form of excitement or depression. Generally speaking, the more numerous the interests, and the wider the sympathies the human mind embraces, the stronger it is, and the less liable to break down under strain of any kind. To a small farmer the loss of even a single beast, or the failure of a crop, is a very serious matter; it weighs on his mind like an obsession, and if he happens to be the subject of insane heredity his mind may probably break down. He has, as a rule, nothing to turn to as a relief, nothing that can operate as a counteracting agent. He, as likely as not, has resort to drink to drown his feeling of despondency, which only makes matters worse. On the other hand, a man who, from his position, education, and circumstances, is many-sided as regards his mental constitution, can always find relief in one or other direction from calamities even of a serious nature. This is a mere truism, but it helps to explain the fact under discussion.

The second point raised in the Report is the relation of pauperism to insanity. Here there seems to be more or less correspondence in the distribution of the two, with two or three exceptions. Waterford, which, as we have seen, heads the list in the case of insanity, comes second in the proportion of paupers per 10,000 of population (37·5), Limerick taking precedence with a ratio of 40·9. The province of Ulster in the case of pauperism as in the case of insanity has a much lower proportion than the other provinces, the ratio there ranging from a minimum of 8·2 to a maximum of 16·5, while in the other three provinces the limits are 15·3 and 40·9.

Thirdly, with regard to emigration the conclusion arrived at is that there is no marked degree of relationship between the amount of insanity and the emigration rate. This is contrary to the popular and generally accepted view in this country, a view, however, which has been combatted more than once in the pages of this Journal. The subject was also dealt with in the Special Report of the Lunacy Inspectors published after the census of 1901, when a similar conclusion was reached (*vide Journ. Ment. Sci.*, January, 1907, pp. 159, 160). The view, therefore, that the higher proportion of insane in Ireland as compared with the sister countries has anything to do with emigration may be regarded as an exploded opinion, not warranted by facts.

Lastly, as regards the question of the relation of alcohol to insanity, the results of statistical inquiry are not quite what might have been expected. There is no subject, probably, which so bristles with difficulties, and which is so much open to fallacies of various kinds, as this one; and while not at all disputing the facts given in the Inspectors' Report, we have some hesitation in accepting the inferences drawn therefrom. Alcoholics are divided into two classes, ordinary drunkards and the subjects of chronic alcoholism. The number of the former is estimated from the proportion of the population proceeded against for drunkenness in the five years, 1905-1909. The amount of chronic alcoholism is admittedly only a rough calculation, based on the propor-

tion of deaths attributed to alcoholism, delirium tremens, and cirrhosis of the liver as set down in the Registrar-General's Reports. As regards the division into two classes we cannot overlook the fact that these largely overlap. Are there not many chronic alcoholics proceeded against, some of them again and again, for drunkenness? And, moreover, are there not hundreds, probably thousands of persons who take more drink than is good for them who never find their way into a police court; and whose death may not be registered as due to alcoholism, delirium, or cirrhosis? In large numbers of cases of persons in whom alcoholic excess was the essential cause of disease and degeneration of organs leading to an ultimately fatal result, the fact of the excess is absolutely suppressed, and the cause of death set down to disease of heart, kidneys, brain, etc., which was not in reality the *causa causans*, but merely the secondary result of alcoholic indulgence. Relatives are always particularly sensitive on this score, and medical attendants in many cases dare not, if they would, enter what they know well to be the real cause of death in their certificates. It is more than probable that in the large majority of cases in which death has resulted as the consequence of slow progressive changes in one or other of the vital organs due to alcoholic indulgence this fact never appears in mortality statistics. This is not the fault of those who compile them, and who have to take things as they find them, and as long as human nature remains what it is at present, it is to be feared that the figures supposed to represent the incidence of disease in tables of mortality will continue to present a mass of inaccuracy. Until medical men are permitted to make what we may term honest returns of the true cause of death, it will be almost a useless quest to endeavour to determine such questions as the relation of alcoholism to insanity. The indirect effects of drinking habits in previous generations on the production of insanity in succeeding ones is not taken into account, and would probably be impossible to estimate. Without a complete ancestral history of each individual case no reliable conclusions could be formed. Having regard to the opinions of authorities of widest experience it is probable that alcohol is, directly or indirectly, a cause of insanity in at least 15 to 20 *per cent.* of cases admitted to asylums. But even this can only be taken as an approximate estimate.

The general conclusion, therefore, as stated at the end of the section of the report devoted to this subject, that "alcohol possesses comparatively small importance as a cause of insanity in Ireland," will probably be regarded by many as rather too dogmatic in character. It might have been better to have qualified it in some way by the addition of some such words as "as far as can be estimated from available but necessarily imperfect statistics." If this proviso had been inserted the inference drawn would have been less liable to misconstruction—a result which has actually occurred, as was evident from remarks which were made at the Quarterly Meeting of the Association in November last. A writer is perfectly justified in candidly stating conclusions which in his opinion follow from the facts at his disposal, but when, as in this case, as the writers of the report will probably be quite ready themselves to admit, there is a considerable amount of uncertainty as to the adequacy of the data which form the basis of argument, it might

perhaps be better to present inferences as probabilities, even strong probabilities, and not as certainties.

As regards the general statistics of insanity, the total number of insane under care at the close of the year 1911 was 24,655, an increase of 261, the corresponding increase for the previous year having been 250, while the average increase for the preceding ten years was 322. Our acknowledgments are due, and cordially given to, the Lunacy Office for the extra columns in the tables on pp. xii and xxii of the report, giving the averages for five-year periods of the proportion to population of insane under care, and of admissions respectively. These constitute a most valuable addition to the tables, enabling us to form, as it were, an *immediate* estimate of the progress of insanity, more easily attainable in this than in any other way. During the period 1880 to 1911 the proportion of insane per 100,000 of estimated population has advanced from 250 to 563. In the table the thirty years from 1880 to 1910 are divided into six five-year periods, and we learn from the figures that during the four quinquennia following the first, the average proportion advanced by increments of 44, 54 and 67 respectively, while in the last five years it has dropped to 41. The rate of increase, therefore, tends to be on the decline. The same fact is evident as regards admissions, as is seen from the table on p. xxii. But one point may be noticed, *viz.*, that the proportion of readmissions to population has remained practically stationary for the past twenty years, the figures for the four quinquennia being 16, 17, 18 and 17 respectively, while that of first admissions has varied from 52 to 68. In these latter there has also been a drop in the rate of increase during the last 5-year period in the table (1905-1909). If we compare the most recent quinquennia, 1902-1906 and 1907-1911, we find that the average proportions of first admissions per 100,000 of population were 69 and 66 respectively, which indicates a decided fall in the ratio of occurring insanity. This looks hopeful.

The percentage of recoveries on admissions was 40.7, but this is probably a very optimistic calculation, as the term "recovery" is interpreted differently according to individual views, and in many instances it, no doubt, implies merely a lucid interval in recurrent cases.

The death-rate was 7.2 *per cent.* of the daily average, and has remained practically the same in Ireland for many years past, but it varies greatly in individual asylums in different years, the highest death-rate in 1911 having been 10.6 in Downpatrick, where 34 *per cent.* of the total mortality was due to tuberculosis, and the lowest in Waterford, 4.4. As has been previously suggested, the value of the table on p. xxv, giving the proportional mortality from phthisis, general paralysis, and epilepsy, would be considerably enhanced if the ratios of the number of deaths from each of these diseases to the total number of deaths, and the averages of same for five-year periods were given, as in the other tables already alluded to. It is of importance to know whether the mortality, at any rate from phthisis and general paralysis, is increasing or on the decline; that due to epilepsy remains practically stationary. The deaths from phthisis during the last four quinquennia averaged 27.8, 28.5, 27 and 23.8 respectively, so that a considerable fall has taken place in the last. The percentage mortality from general

paralysis, on the other hand, has risen from 3 to 4·4 *per cent.*—a rise of nearly 50 *per cent.* in the twenty years.

With respect to asylum finance, the inspectors allude to the fact that “for the first time since the Local Government (Ireland) Act, 1898, came into operation, the amount available to credit of the local taxation account was insufficient to meet the charges against it.” Previous to that Act the capitation grant of 4s. per head per week was always paid in full for the maintenance of asylum patients, and, of course, varied from year to year according as the numbers of insane increased. By the Act it was provided that in future the source from which the grant was to be derivable should be the local taxation account. When the Bill was under discussion apprehensions were entertained on the part of the Irish members that this source, owing to the increase of insanity, would before very long be inadequate, and the attention of the then Government was called to the fact, without result, however. These apprehensions have now been realised, and there is a considerable shortage in the amount of the capitation grant for the past two years. During the financial year 1910–1911 the deficit amounted to £26,672 for the whole of Ireland, a very serious reduction, and which, unless some change is made in the mode of payment, is certain to grow larger with each successive year. The Act, therefore, by its insufficient provision for the proper maintenance of the insane, throws an unfair responsibility on the local rates, for the relief of which, and to ensure a more liberal treatment for the insane poor, the grant was originally made—a sound principle, the abandonment of which, if even to only a partial extent, cannot but operate prejudicially as regards the interests of the insane in asylums.

The retirement of Dr. Arthur Finegan “after twenty-five years’ faithful service” as medical superintendent of Mullingar Asylum has removed from the Irish official staff one who was formerly an active member, and for some time secretary, of the Irish Division. Dr. Finegan’s breezy, go-ahead personality will be remembered by those who knew him well in the most active period of his career. With the aid of a sympathetic Board of Governors, whose confidence he entirely possessed, he succeeded in bringing the asylum to a high state of efficiency. The Inspectors record with regret the death of Dr. H. M. Cullinan, Deputy Superintendent of Portrane Asylum, and of Dr. W. S. Gordon, senior assistant at Mullingar. Dr. Cullinan’s death, although not so absolutely sudden as that of his former chief and colleague, Dr. Conolly Norman, was yet tragically rapid in its onset. He attended the Quarterly Meeting of the Association at Epsom in February last, and within but a short interval from then death robbed us of his genial personality. He has been succeeded by Dr. J. M. Redington, senior assistant at the Richmond Asylum. Dr. Finegan’s post has been filled by Dr. Lawrence Gavin, who has seen service in both English and Scottish asylums.

There is nothing which calls for special notice as regards private asylums or the workhouse insane. The condition of the latter in a great number of instances is still most unsatisfactory. There is but one effectual remedy—clear them all out. A workhouse, except in a comparatively few instances, is no place for an insane patient.

*Mind and its Disorders: a Text-book for Students and Practitioners.*

By W. H. B. STODDART, M.D., F.R.C.P. Second edition.  
With illustrations. London: H. K. Lewis, 1912. Pp. xvi + 518.

We congratulate Dr. Stoddart on the publication of the second edition of *Mind and its Disorders*. The first edition, which appeared a little more than three years ago, has been deservedly popular with students and practitioners. The author, in his preface to the present edition, expresses his gratification at the amount of skilled research in the field of psychiatry which has been carried out during the past few years, and he has consequently made some alteration in almost every chapter.

At present there is a tendency not to restrict psychology to objects of awareness or to the conscious life as such. There are gaps in consciousness which must be included. Moreover, our knowledge of the conscious life of others, and especially of children, animals and plants, is studied from their actions—our own consciousness tells us nothing of them introspectively. We welcome the inclusion in the present volume of the subconscious phenomena, in the author's accounts of normal psychology and of the psychology of the insane. Chapter VII of Part II is devoted to the psycho-pathology of the Freudian school, and gives an exceedingly clear statement of the methods of psycho-analysis as employed in the investigation and treatment of mental disorders. In the chapters on hysteria and on psychasthenia a subconscious complex is discussed, and the theories of the Freudian school with regard to the essential pathology of these conditions are considered.

The author adopts a wide conception of acute confusional insanity, and describes under that heading the exhaustion and intoxication psychoses. He emphasises the similarity between this form of disorder and the alcoholic and other toxic psychoses, and has rearranged the order of the chapters so as to bring these groups into sequence.

In the chapter on disorders of sensation, the author states that analgesia is the most common and most extensive cutaneous sensory defect occurring in the insane, and that the best criterion of their insensibility is their response to pin-prick. This cutaneous sensory loss, in the author's opinion, forms a cardinal symptom in stuporose and confusional states.

We regard the foregoing as amongst the most important alterations that have been made in the present edition, which has been carefully revised, and which we are confident will be very widely read.

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*The Psychology of Insanity.* By BERNARD HART, M.D. Cambridge University Press. Pp. 176. Price 1s.

This little book belongs to the "Cambridge Manuals of Science and Literature," a series already including over fifty volumes, all seemingly entrusted—as one would expect from the auspices under which they are issued—to highly competent writers. They are addressed to "the inquisitive layman," whose tastes appear to be marvellously miscellaneous. *Cash and Credit, Stained Glass, The Idea of God, Earthworms,*

and all the intervening subjects, appeal to him impartially. It is evident that Dr. Hart has been acutely conscious throughout of this universally inquisitive layman. He writes very clearly, simply, concisely, using few technical terms; foot-notes and references are rare; the bibliography (all English) is of the shortest. The author seems to feel that he must not unduly delay the reader who is anxious to get to the next volume on the list, *The Modern Locomotive*.

Notwithstanding a certain baldness which may thus be accounted for, it is still possible to congratulate the "inquisitive layman" on Dr. Hart's book. It is really an able, up-to-date, and modern presentation of the subject. It is, indeed, more so than lay readers may suspect, for Dr. Hart's dogmatic utterances fail to suggest that many eminent alienists, if entrusted with the same task, would have carried it out very differently, while some would certainly have anathematised views which are here stated as matters of course.

Most, however, must agree that Dr. Hart's fundamental proposition is admirable in an exposition of this elementary kind. It is indicated by the very title of the book, and involves the assumption that the alienist's study is simply a subdivision of the psychologist's study, that the insane man is merely the sane man working under unusual conditions. "Not only are the mental processes of the insane explicable by psychological laws, but these laws are identical with those governing the minds of the sane."

In ascertaining what these laws are, Dr. Hart courageously throws aside, not only the whole physiological conception of insanity, with morbid anatomy, but also dispenses with the aid of the recognised masters alike of psychology and psychiatry. Kraepelin and Krafft-Ebing are just barely mentioned. The three teachers on whose work this manual is almost entirely based are Janet, Freud ("probably the most original and fertile thinker who has yet entered the field of abnormal psychology"), and Jung, of whom only one is, in the strict sense, an alienist. It must not be supposed that Dr. Hart slavishly follows these three teachers; on the contrary, he is severely discriminative and exclusive. Janet, as one would expect, simply furnishes his doctrine of dis-sociation as the avenue of approach to Freud, but Freud's doctrine of the unconscious, to which Janet's teaching might be supposed to lead up, never emerges; Freud's all-pervading "infantile sexual constitution" is only mentioned to be rejected; and even the psycho-analytic method itself (apart from Jung's association tests), is never described or even mentioned by name. The Freudian ideas to which the central part of the manual is devoted are four: (1) the complex, (2) conflict, (3) repression, (4) projection. These conceptions are explained in simple and popular language, and it would not be easy to use them more skilfully as a method of interpreting the mechanism of the general phenomena of insanity.

It will be seen that Dr. Hart's little book has an interest that is out of proportion to its very elementary character. It will probably be read, if only as "a sign of the times," by many who are not merely inquisitive laymen.

HAVELOCK ELLIS.

*Brain and Body [Hirn und Körper].* By Prof. MARTIN REICHARDT, Würzburg.

The special study made by Dr. Reichardt in this volume, which extends to 509 pages, and is part 2 of vol. vii of the published researches made at Würzburg Mental Hospital, is the gain and loss of weight in persons suffering from the various mental diseases in relation to the cerebral symptom-complex.

The experiments, which represent a record of painstaking work done at Würzburg, include pathological researches and full clinical observations in each case demonstrated. There are 153 illustrations.

There can be no doubt that the observation of gain and loss of weight in mental diseases is of very great scientific importance, and in combination with other symptoms is of the utmost importance in diagnosis. It is recommended that in certain cases the weight of the patient should be taken daily.

In chronic insanity, weight may remain practically stationary for a number of years. On the other hand, death is frequently noted from marasmus directly consequent on cerebral disease. During acute pathological changes in the brain, the body may suffer acute or even hyperacute loss of weight, but on the other hand this variation may be due to some other cause, apparent or obscure.

Observations regarding the fluctuation of weights, temperatures, etc., in cases which embrace all the known forms of insanity are given, and the subject, as treated, is of much interest.

HAMILTON MARR.

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### Part III.—Epitome of Current Literature.

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#### 1. Physiological Psychology.

*The Unconscious in Psycho-analysis.* (Proc. Soc. Psych. Res., Part 66, vol. xxvi, 1912.) Freud, S.

Freud's conception of the unconscious has aroused considerable doubt and dispute. He here seeks to expound its meaning as plainly as possible. Rejecting the contention of those who assert that everything outside ordinary consciousness is physical, he refers to the significance of post-hypnotic suggestion, and emphasises the dynamic element in such phenomena; a psychic element may not only be unconscious, it may be active. The hysterical patient's mind is full of such active yet unconscious ideas; her actions in her "fit" are not comprehensible to herself, but psycho-analysis may show that they are the dramatic representation of an incident in her life, the memory of which was unconsciously active during the attack. So that unconscious ideas are not necessarily weak, and we must distinguish between unconscious ideas that fail to penetrate consciousness because they are

weak, and unconscious ideas that fail to penetrate consciousness even though they are strong. The ideas of the former kind are *foreconscious*, those of the latter are *unconscious* ideas proper, possessing dynamic intensity and activity.

Freud objects to speak of "splitting of consciousness" as being an abuse of the term "conscious"; it would be better to speak of such cases as dependent on an oscillation of conscious attention between two different psychic complexes, which thus become conscious in alternation. He also objects to the notion that the unconscious belongs exclusively to the pathological sphere, referring to *lapsus linguae*, errors in memory and speech, and more especially to the psycho-analytic investigation of dreams ("the most complete piece of work the young science has done up to the present") as revealing the action of strong unconscious ideas in normal persons.

Foreconscious activity may not be essentially divergent from unconscious activity, but whereas the former passes easily into consciousness, the latter does so only with much effort and in spite of resistance, which is not offered to foreconscious ideas. It is probable that every psychic act begins as an unconscious one, and may remain so or go on developing, according as it meets with resistance or not; but, as dreaming shows, the laws of the unconscious differ widely from those of the conscious, and we may hope to learn more of the peculiarities of the unconscious by a profounder investigation of the processes of dream-formation.

HAVELOCK ELLIS.

*Certain Resemblances between the Psychic Life of Savages and Neurotics*  
[*Ueber einige Übereinstimmungen im Seelenleben der Wilden und der Neurotiker*]. (*Imago*, 1912.) Freud, S.

Prof. Freud, who is always invading some new realm, has of late much occupied himself with the psycho-analytic interpretation of the mental conceptions of primitive peoples. In a series of papers now being issued he deals with several such primitive conceptions.

In the first he discusses the primitive horror of incest leading to exogamy. He here more especially examines conditions among the aboriginal Australians, using the data brought together by Frazer and other English writers.

The second and much more elaborate paper deals with taboo as an expression or emotional ambivalence (the term devised by Bleuler to indicate combined attraction and repulsion). The question of taboo is regarded by Freud as an actual one; we are still to-day influenced by taboo and categorical imperatives, and it is, therefore, essential that we should seek to comprehend their psychological nature. Freud starts with a criticism of Wundt's view of taboo as a fear of the operation of demons, the two aspects of the tabooed person or thing as "holy" and "unclean"—to be guarded and to be guarded against—being regarded as later and secondary. This view Freud considers to be superficial and unsatisfactory. To the psycho-analyst the phenomena of taboo are already familiar, and if he were not accustomed to speak of patients suffering from obsessions he might very well say they were afflicted by "taboo-disease," though it must not be assumed at the



outset that the resemblance is more than external. The first resemblance between the neurotic prohibition and a taboo lies in the absence of motive. Any threat of external punishment is unnecessary. An inner certainty (a *Gewissen*, a conscience) exists, and its violation is intolerable. The core of the neurosis, as of taboo, is contact, whence *déire du toucher*. Moreover, everything which comes in contact with the forbidden thing, even speech, is itself forbidden. It becomes, as a patient said, "impossible." The obsessed patient behaves as though forms and things possessed a dangerous contagion. Just so a Maori must not blow at the fire, for his sacred power is thus communicated to the fire, and thence to the pot on it, and thence to the food in the pot, which may kill the person who eats of it. An obsessional prohibition may, however, be removed by carrying out certain actions which also have an obsessional character. Washing is most preferred among these actions. A taboo also may be preferably removed by a ceremonial lustration.

The clinical history and the psychic mechanism of such obsessions, as revealed by psycho-analysis, show, however, that these patients in early childhood had the *wish* to touch, and that this wish encountered, *from without*, a prohibition. The prohibition is accepted, for it also is supported by inner motives (as by the relation to the person from whom the prohibition emanates), and becomes stronger than the original wish, which is not destroyed, but suppressed and banished into the unconscious. Thus we have the *ambivalent* relation of a person to an object or an action—the impulse on one side, the prohibition on the other—and they cannot come together and solve their tension, because one is in the conscious life and the other in the unconscious life. The drama of the obsessed person's life lies in the opposing play of these two mighty forces, each owing its strength to the other, and each seeking to inhibit, and, as it were, outwit the other.

Let us attempt, Freud proceeds, to treat a taboo as though it were a patient's obsessional prohibition, bearing in mind that any complete agreement of the two phenomena is impossible. It is clearly unreasonable to ask a savage concerning the motive and the genesis of a taboo; he is "unconscious" of it. We may regard the taboo as a very ancient prohibition impressed on primitive men against an action to which they had a strong tendency, a tendency still unconsciously persisting. The oldest and gravest taboos are those of totemism: the prohibition against killing a totem animal and the prohibition against having intercourse with a person of the opposite sex having the same totem. To do these two things must, therefore, have been the oldest and strongest impulses of humanity. The multiplicity of taboo manifestations may be reduced to unity; the foundation of taboo is a forbidden action to which there is a strong unconscious tendency.

The fact that a man who transgresses a taboo becomes himself taboo may be explained by the fact that he has acquired the dangerous property of arousing envy; he has become *contagious*. A man need not, however, transgress a taboo in order to be himself permanently or temporarily taboo, if he is in a position to arouse the forbidden desires of others and set in action the ambivalent attitude. That is why kings are taboo. It is also clear why the transgression of many taboos is a

social danger to be punished by society. There is a real danger of an imitation which might be fatal to a community. Thus the taboo becomes a general form of legislation and is brought to the service of social tendencies certainly much more recent than the taboos themselves. The comprehension of the taboo also throws a light on conscience, which, like a taboo command, is something given in consciousness, and of origin unknown to the person who experiences it, also arising probably out of an emotional ambivalence.

The ambivalent tendency appears to be much more marked among primitive than among civilised peoples. With its decrease the taboo-system slowly declined. The neurotics who are compelled to take up this conflict and reproduce the taboo "have brought with them an archaic constitution as an atavistic vestige, the compensation for which, in the service of the demands of civilisation, compels them to a vast psychic expense."

While, however, taboo prohibition and moral prohibition are essentially identical, there are psychological differences between them; nor is a taboo, which is a social phenomenon, quite the same as the morbid obsession of a neurotic. The chief difference is held to lie in the predominance of several impulses in the neurotic.

Thus the comparison of a taboo with a neurotic obsession illustrates the value of a study of abnormal psychology for the comprehension of the development of civilisation. "Hysteria may be said to be a caricature of an artistic creation, an obsessional neurosis the caricature of a religion, a paranoid delusional system the caricature of a philosophic system." But the neuroses are asocial formations, and they seek by private means to attain what in society is achieved by collective work.

HAVELOCK ELLIS.

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## 2. Ætiology of Insanity.

*The Toxic Genesis of Contracture—Experiments and Criticisms* [*Genesi tossica della contrattura—Esperimenti e Critiche*]. (*Riv. d. Pat. Nerv. e Ment.*, vol. xvii, fasc. 6.) Buscaino, V. M.

Buscaino has already expounded the doctrine that contracture consecutive to interruption of the pyramidal bundle, whether in the form of late post-hemiplegic contracture, Little's disease, or spastic paralysis of adults, is peripheral in origin, and distinctly toxic in its genesis. He argues that in a paralysed limb there is set up a certain amount of venous stasis, an interference with the normal metabolism, especially in the muscles, and a stagnation of catabolic products. These catabolic products stimulate the contractility of the muscle-fibres. Their stagnation provokes a slightly increased contraction of these, and consequently an excitation of the peripheral musculo-tendinous sensory nerve-terminations with production of a nerve-current which arrives at the tonic centres, and is then reflected on the muscle-fibres, augmenting their contraction. In this manner the contraction goes on increasing, partly by reason of the catabolic products, partly as the result of the tonic currents which are incessantly discharged in a reflex manner, and

distributed to the muscles in quantities proportionate to their mass. Things arrive at a point where the contracture becomes objectively manifest. The contracture is nothing else than a strong toxic increase of the muscular tone, which gives rise to those known attitudes of the limbs, attitudes which vary according as the flexor muscles are more or less developed than the extensors.

The experiments on dogs, described by Buscaino in this paper as well as his replies to criticisms already passed on his doctrine, certainly go far to confirm the toxic genesis of contracture.

J. H. MACDONALD.

*Remarks on a Case of Acute Delirium* [*Alcune considerazioni a proposito di un caso di delirio acuto*]. (*Riv. d. Pat. Nerv. e Ment.*, vol. xvii, fasc. 6.) Ziveri, A.

In this paper, the writer gives the views of various authorities as to the ætiology of acute delirium and the propriety or otherwise of regarding the condition as a nosological entity. In the case here recorded no ætiological factor was ascertained either from the history or the physical examination of the patient. The only noteworthy feature in the family history was the death of the mother from senile dementia. The disease ran a fatal course of about six weeks. Visceral alterations and fever were absent, except towards the end, and they were then regarded as secondary features. Lesions were found after death in the liver and kidneys, but these were considered to be terminal and secondary in character. Histological examination of the nervous system revealed a wide spread affection of the nerve-cells of the nature of an acute degeneration. The neuroglia was less profoundly altered whilst the blood-vessels were congested and surrounded here and there by lipid materials. The author believes that whilst the picture of acute delirium is more symptomatological than histological, it ought to be retained in the classification as a distinct variety. By acute delirium is to be understood a hallucinatory, confusional, delirious psychosis, accompanied by great restlessness and agitation, tremors, subsultus, pseudo-chorea running a rapid course with grave organic decay and insufficiency of the organic defensive powers, especially as regards the heart, not always accompanied by fever, being sometimes apyretic throughout, in the absence of terminal infections. The ætiological factor need not necessarily be infective (strepto- and staphylococcus *Bacterium coli*, Bianchi, Kraepelin), but may be simply toxic, and in that case either exotoxic or autotoxic. In the case under review the writer favoured an autotoxic origin, but it is to be remarked that no mention is made of a search for micro-organisms.

J. H. MACDONALD.

*On Syphilis of the Nervous System in Infancy, Childhood, and Early Adult Life.* (*The Clinical Journal*, vol. xli, 1912, Nos. 2, 3, 4, 5.) Owen, S. A.

These articles comprise an excellent summary of our knowledge of the relationship of syphilis to nervous disease in early life in the light of recent discoveries. The subject is critically considered, and the

author's own views, research, and experience stated. Appended is a useful bibliography. The author has so condensed a maximum of knowledge in a minimum of space that further digest is hardly possible. His conclusions will be given with a very few preliminary remarks. The *Spirochaeta pallida* is his starting-point, and its operations are discussed ætiologically, clinically, and pathologically. Its relationship to such well-known laws as those of Colles and Profeta is described, and well-ascertained facts regarding the transmission of this disease elucidated or thoughtful suggestions made. The value and importance of Wassermann's reaction is shown and practical experience recorded. Great stress is laid upon those groups of cases in which the nervous disease is due to syphilis, but in which there is an absence of clinical signs of the latter.

The clinical groups treated, with illustrative cases, are (1) amaurosis, (2) imbecility, idiocy and amentia, (3) diplegic cases, (4) epilepsy, (5) meningitis and hydrocephalus, (6) hemiplegia, cerebral thrombosis, hæmorrhage and embolism, tumour and cranial nerve paralysis, (7) general paralysis, tabes, diffuse cerebro-spinal lesions, pseudo-tabes, Charcot's disease, and (8) spinal conditions.

His conclusions are :

(1) Syphilis produces lesions of the nervous system in young subjects with far greater frequency than is generally supposed.

(2) Whilst it is more usual to meet with lesions of the nervous system due to inherited syphilis, we must not lose sight of the fact that in a small percentage acquired syphilis is responsible.

(3) It is important to remember that the nervous lesions in acquired syphilis may occur very soon after the primary infection. In inherited lues, whilst most of the nervous lesions first manifest themselves within the first few months or even years, they may occur at any age up to puberty, at which time the para-syphilitic diseases are usually met with for the first time.

(4) If we admit that a Wassermann reaction of the blood, when positive (with well-defined exceptions), is conclusive evidence of syphilis, past or present, then we have in this reaction a very valuable method of examination, because a positive Wassermann reaction of the blood may be the only positive evidence we have of syphilis.

(5) A careful chemical and cytological examination of the cerebro-spinal fluid, especially with the application of a Wassermann reaction to this medium, is essential. It will, in a large percentage of cases, enable us to differentiate syphilis of the nervous system which is amenable to treatment from para-syphilis. Where syphilis appears to produce a primary neuronic decay or dystrophic condition in the nerve structures apart from any pronounced meningeal changes, we must not expect to find changes in the cerebro-spinal fluid that we usually associate with syphilis and para-syphilis of the nervous system.

(6) Whilst the evidence is rather conflicting, it would appear that syphilis is responsible for a higher percentage of simple mental defect than is usually stated.

(7) Whilst syphilis is responsible for a high percentage of cases of interstitial keratitis it is the only cause of hyalitis in infants, a rare but well-recognised type of amaurosis in infancy.

(8) During the first few months of life syphilis is a not infrequent cause of meningitis and hydrocephalus. A lumbar puncture and a Wassermann reaction afford great assistance in the differential diagnosis.

(9) The part which syphilis plays in the production of diplegia is uncertain. The writer thinks there is evidence to show it is responsible in a few cases, more especially of the ante-natal type. It is difficult to prove or disprove an accidental association.

(10) Syphilitic epilepsy is infrequent. The writer is inclined to the view that, in infants especially, convulsions are more likely to occur in those who are the subject of inherited lues than in children who are otherwise healthy. In older children syphilis may be the sole cause of mental deficiency and fits of the idiopathic type. Fits of the Jacksonian type and the epileptiform seizures of general paresis are not included in the above statement.

(11) Whilst myelitis is a common lesion in adults who are suffering from acquired syphilis, spinal lesions apart from tabes appear to be infrequent in the subjects of inherited lues.

(12) The para-syphilitic affections of inherited lues closely resemble those seen in the subjects of the acquired malady.

(13) The morbid anatomy of inherited and acquired syphilis of the nervous system appear to be identical.

(14) The prognosis in diseases of the nervous system due to syphilis is grave. Early diagnosis is essential to procure a good result from treatment. In the Wassermann reaction and a careful examination of the cerebro-spinal fluid we have the most efficient aids to an early diagnosis.

J. R. LORD.

*Alcoholism and Psychoneurosis [L'alcoolisme et la psychonévrose]. (L'Encéphale, July 10th, 1912.) Mouratoff.*

In this paper, the author discusses the relation of alcoholism to the several psychoneuroses with which it is most often and most closely associated, namely, hysteria, epilepsy, and periodic insanity. Considering dipsomania from this point of view he expresses the opinion that in a large number of cases of this condition, especially those where the alcoholic tendency is clearly intermittent, the real disorder is periodic insanity. In some instances, the dipsomaniac impulse may be due to epilepsy, but the rarity of convulsive attacks in dipsomania and the tolerance of alcohol which these patients so generally show, go to prove that this is not a common association. The pseudo-dipsomania of chronic alcoholism, on the other hand, is an expression of general psychic degeneration complicated very usually with hysteria. It is with the latter neurosis also that the author would connect the numerous cases of alcoholic automatism with incomplete loss of memory.

W. C. SULLIVAN.

*Psychiatry and Bacteriology [Psychiatrie und Bakteriologie]. (Psychiatrisch-Neurologische Wochenschrift, No. 28, 1912-13.) Bresler. J.*

Dr. Bresler in this paper discusses the relationship of infective intestinal disease to mental disorders. From what has been observed

with regard to this particular bacterial group, the manifold nature of its general characters, the differences and mutations of its varieties and origin, the changes and diversity of its pathogeny, and its possibilities of cure, he is of opinion that, with the progress of research, this relationship will go far towards clearing up the obscurity which still shrouds a great deal of mental diseases, and that the number of those forms of derangement which we are wont to label as "indigenous" or "idiopathic" will therefore tend to continually diminish.

Schizophrenie (dementia præcox) is now, he avers, universally reckoned amongst diseases of toxic origin, this view being no longer regarded as a mere hypothesis; and we therefore look to bacteriology as likely to help in solving the problem. The observations of A. Marie and H. Darré on sleeping-sickness point this way. In the case of trypanosome infection they distinguish two forms of mental derangement, the somnolent form and the peculiar sleeping-sickness, or the peculiar mental disturbance associated with this latter; a confusional form and a form with dementia, besides a delirious variety; and in the case of the demented form they draw attention to cases with the katatonic symptom-complex, and speak definitely of a katatonic form.

G. Martin and Ringenbach, physicians in the French colonial army, who have studied 500 cases of sleeping-sickness in the French Congo, also make similar definite statements as to the occurrence of a dementia præcox in certain forms of the malady. And if Marie and Darré do not concur in this view, they yet remark that while the katatonic symptom-complex is, no doubt, in the majority of instances in which it occurs a merely transient phenomenon, in several cases "by its obvious and persistent character" it presents great diagnostic difficulties, "all the more in that in its bodily symptoms and paroxysmal course dementia præcox likewise recalls trypanosome disease." From the great number of varieties of trypanosome and their diverse pathogenic properties it is hoped that in many cases of dementia præcox infection by one or other species of trypanosome may prove to be the cause.

A similar prospect opens up in the case of spirochæte infection. No one will doubt at the present day that the *Spirochæta pallida* is the essential cause of general paralysis, although up to this it has not been found in any instance. It is admitted that the *S. dentium* which occurs in carious teeth, a saprophyte, has a great similarity to the *S. pallida*, and that other species of spirochæta occur in man (*S. talanitidis*, *S. refringens*, *S. buccalis*). We know that the *S. pertenuis*, the active agent in tropical framlæsia, cannot be differentiated with certainty from *S. pallida*. It is a fact that in numbers of the insane a high degree of dental caries is found, and that this frequently occurs in particularly severe forms of mental disease (in grave cases of agitated melancholia, and also in confusional states with obstinate refusal of food, which rapidly terminate in death or imbecility), so we are led to suppose that in such cases vegetable spirochætes, usually regarded as harmless parasites in the human body, have changed their character, and have assumed pathogenic qualities which only fall a little short of the dangerous properties of the syphilitic spirochæte. We might in such cases speak of a parasymphilis or a paralues in the same sense as the designation paratyphus or paradyseutery is used.

According to Gerber, we possess no unqualifiedly valid distinguishing characters which will mark off *S. pallida* and *S. dentium*. He maintains that a special pathological cause is not a condition in the case of spirochaetes in the region of the oro-pharyngeal cavity. They are found principally at the necks of teeth, in the tonsillar lacunæ, and on the dorsum linguæ. He observed that salvarsan exercised an effect on these spirochaetes, and was able by means of it to cure two cases of scurvy of the oral cavity in which spirochaetes were found in a pure culture from the ulcers. Also in Vincent's angina the oral spirochaetes, of which Gerber distinguishes six species, play the part of exciting cause.

In view of the exact methods of experimental chemo-therapy, which warrant the highest expectations, it is of the greatest importance to institute systematic and comprehensive researches in the direction above indicated.

T. DRAPES.

### 3. Clinical Neurology and Psychiatry.

*Some Notes on Epilepsy* [*Quelques remarques sur l'épilepsie*]. (*Rev. de Psychiat.*, May, 1912.) Damaye, H.

After commenting on the difficulties of epilepsy, and pointing out that the subjects of this disease have gained no benefit from the anti-toxin discoveries of the last half of the last century, the article points out that all the drugs in use are cortical depressors, and that fevers, cachexia, senility also tend to diminish the severity of the disease. Fits often cease after fracture, accouchement, etc. Unsuccessful efforts to find the median cephalic vein have stopped the fits in *status epilepticus*, and one case is quoted in which the fits ceased for a year following an attack of crural neuritis, and reappeared with increased frequency during the first few months following the cure of the nerve.

The author considers that the pathological findings in epilepsy are secondary only, and are commensurate, not with the epilepsy, which is functional, but with the degree of dementia. Fits may occur in the course of meningo-encephalitis, cases of injury or cerebral tumour, but undoubtedly may also arise without any such cause—perhaps the origin lies in minute undiscoverable changes in the nuclei or protoplasm.

He states that the epileptic is much exposed to toxic influences, but thinks that the furred tongue and gastric upset are more due to exhaustion than they are causes of the fit; temporary symptoms of a general paralysis may occur as an exhaustive phenomena. The anatomical changes in general paralysis may produce epileptic fits in a non-epileptic, and conversely in epilepsy the dementia may closely resemble general paralysis, and there is nothing astonishing in this when one remembers that general paralysis is only the most extreme form of meningo-encephalitis. Thus from the poor functioning of his digestive apparatus, in conjunction with the mechanical and repeated dulling of the nerve-cells, the epileptic endures a condition more or less favourable to dementia. Bright's disease or tubercle help also to a rapid intellectual enfeeblement. In tubercle, cavities may infect also the

cerebro-spinal fluid. The writer has noted many times a vascularity of the corpus striatum in connection with a cerebro-spinal fluid infection.

The convulsive tendency varies in different cases. Some have one or more attacks daily and others perhaps at intervals of months or even years. Apparent cure sometimes occurs without assignable reason.

*Status epilepticus* occurs in youth or mature age, but not in senility because the neuron energy is deficient. Exhaustion is the cause of death, and *post-mortems* show nothing but congestion and occasionally little subpial effusions. Such have been noted in influenzal bronchitis.

[A blood-count: Female, æt. 28, who died the next morning from *status*. (Infantile cerebral hemiplegia; daily fits; pupils myopic; temperature 40·8°. Given the two preceding days pot. brom. 150 gr., chlor. 75 gr. each day.)

Eosinophile . . . 0 Intermediate . . . 2·6 m = 1

Polymorph . . . 79 Lymphocytes . . . 17·4

Many lymphocytes were in process of segmentation and apparently becoming polynuclears.]

*Status epilepticus* is said not to occur in the Richet-Toulouse salt-free treatment, and this also has the advantage of diminishing the necessary dose of bromides whose continued use dulls the brain.

M. Damaye believes that giving bromide alone in *status epilepticus* is waste of time, and advises large doses of chloral given by the nasal tube with small doses of bromide to help, not forgetting intestinal purgation. Mustard baths to the feet also are useful. Narceine he has not found useful, and antitetanic serum, while the first dose abolished fits for from *two to four days*, was afterwards of no effect. Snake venom has not proved useful, and he regards cures by snake-bite as producing the same effect as accidents as mentioned above. He concludes as follows: "One cannot foresee at present that epilepsy is likely to be amenable to treatment by a serum or vaccine. The fit is really the result of a disposition of which the cause is up to now unknown, and is very often only *one* element occurring in association with another congenital mental disorder of the origin of which no more is known. In nervous diseases one can no longer think of curing what is due to a defect of constitution. In the present state of our knowledge the best prospect appears to be the discovery of a substance strongly anti-convulsant and not having the disadvantages of bromide and chloral. In stopping the fits we should remove *one* of the elements productive of the dementia. To chemistry and experimental pathology belongs the solution of this problem."

M. A. COLLINS.

*Bilateral Motor Apraxia* [*Apraxie Motrice Bilaterale; Contribution à la Localisation de l'Apraxie*]. (*L'Encephale*, June, 1912.)  
D'Hollander, F.

The author describes a case having considerable bearing on the question of the localisation of the lesions necessary to cause motor apraxia, paraphasia and object-blindness.

The patient, a woman, æt. 55, was the subject of mitral regurgitation. There was a history of a previous attack of "acute mania." On admission and subsequently her mental state was one of intense anxiety and irritability. Terrifying hallucinations and delusions of persecution were



present. She refused food and successfully resisted artificial feeding. This led to her death some few months after admission.

The following symptoms were noted during life : (1) The right pupil was larger than left ; (2) hemianopsia was probably present, though the tests were somewhat unsatisfactory ; (3) there was no mind-blindness ; (4) paraphasia without verbal deafness was present. The patient made mistakes in spontaneous speech, but realised them. She also named wrongly objects pointed out, but recognised the right name when pronounced as one of a series by the observer.

(5) Motor apraxia : She exhibited a disability in the execution of various co-ordinate movements in response to orders. This was least marked in regard to quite simple movements of a part of the body such as putting out the tongue or raising an arm. There was a tendency to perseveration in one such act in response to successive commands. The defect was more marked in regard to carrying out habitual actions with objects actually present, *e.g.*, sharpening a pencil with a knife or striking a match. It was most notable when she was asked to execute movements expressive of an imaginary emotion or to imitate the handling of imaginary objects, *e.g.*, to turn the handle of an imaginary coffee mill.

The degree of the defect varied at different times from retardation and clumsiness to complete incapacity. It was bilateral and objectively of equal severity on the two sides. The patient was, however, able to appreciate a greater difficulty on the right side. It was, as mentioned, most marked when the patient was reduced to memories of the act without the co-operation of immediate sensory impressions, other than the words of the order.

She understood what was required, was willing and attentive to her attempts, and these facts, with her evident distress at her failures, witnessed to the psychomotor and not ideational nature of the disability.

(6) An habitual posture of the limbs was present—a condition of “tonic perseveration.” After every movement the upper limbs returned to one of two positions. Either both were held in general flexion with the hands at the level of the epigastrium, or the right was raised in the air with elbow bent and fingers rigidly extended.

There was neither paralysis nor ataxy. Automatic movements, such as mastication, walking, or grasping an object, were perfectly executed. There was a complete absence of chorea, tremor and contracture. Autopsy revealed, in addition to congestion of the brain and some general atrophy, most marked in the frontal region, two focal lesions, namely :

(1) A large “cyst” full of clear fluid, replacing the cortex, and subjacent white matter of the right superior frontal convolution in its posterior half. The lesion was limited to this convolution and did not encroach on the ascending frontal.

(2) A large entirely subcortical softening in the left hemisphere. It undermined parts of the parietal lobe (inferior parietal lobule and angular gyrus), all the convolutions of the occipital lobe and all those of the temporo-sphenoidal except the superior temporal. It had destroyed the optic radiations and all the bundles of association fibres which originate or end in the cortical areas named.

The conclusions drawn by the author from this case are as follows :

The conservation of one visual association area—even the right—is sufficient for visual identification of objects.

The presence of paraphasia and absence of word-deafness supports Lewandowsky's view that this condition is due to damage to the association fibres of the superior temporal while the centre itself remains intact.

He considers that in this case separation of the left posterior association area from the left motor area suffices to explain the apraxia of the right side. He does not believe, however, that the equally severe apraxia of the left side can be ascribed to this lesion of the left hemisphere and consequent loss of its dominating influence. He considers the lesion of insufficient extent to cause this symptom. He regards the apraxia of the left limbs as referable rather to the lesion in the right superior frontal convolution. His view (based on this case and one of Hartmann's) is that there exists in the right frontal convolutions an association area co-ordinating the stimuli from various sources which underlie a purposive action of the left limbs. Thence are discharged to the motor area the stimuli for the necessary correlated movements.

The author compares the tonic perseveration seen in this case to the fixed attitudes which occur in psychoses, and especially the catatonia of dementia præcox, and suggests that the lesion underlying the latter may have similar localisation.

EDWARD MAPOTHER.

*Alzheimer's Disease (Senium Præcox). The Report of a Case and Review of Published Cases. (Journ. of Nerv. and Ment. Dis., July and August, 1912.) Fuller, S. C.*

In this article, the author gives an account of a case of precocious senium and a review of the twelve cases which have been previously recorded, and suggests that, while in the data at present accumulated some of the postulates necessary for the formation of a new disease entity are lacking, further research may lead to the isolation of such.

The clinical history of the cases is as follows : In all cases, with the exception of one, in which it commenced at the age of thirty-two, the disease set in at middle life or slightly past, and was characterised by memory defect, disturbance of retention and general mental weakening which progressed, with varying degrees of rapidity, to a marked dementia. As a rule, early in the course of the affection, aphasic disturbances, ideational apraxias and agnosias developed. These varied from time to time in severity, but were never as intense or consistent as the speech disturbances and apraxias originating from coarse focal lesions of the brain. The majority of the cases exhibited mental confusion with some delirium and loss of bladder and rectal control, but without evidence of limb paralysis or loss of gross muscular strength. Disturbances of the motor projection paths were slight or absent, and convulsions with loss of consciousness were not noted save in the terminal stage, when epileptiform attacks and muscular twitchings were recorded. Neither luetic infection nor alcoholic indulgence seems to have played any rôle as causative factors.

In the macroscopic examination of the brains, atrophy, variable in

extent and situation, was noted in ten cases ; gross focal lesions were present only in one, and only two showed an appreciable arterio-sclerosis. In ten cases there was hyperplasia of the pia. Microscopically, the most noteworthy features were the presence of miliary plaques and a basket-like condition of the ganglion cells due to alteration of the intra-cellular neurofibrils. In one case, however, no plaques were found, and in another the basket-like condition of the ganglion cells was not noted. These are not peculiar to Alzheimer's disease. Both may be found in the brains of typical senile demented, but in them the plaques are usually less numerous and of smaller size.

The author lays stress on the fact that here we have a type of mental disease which is not the result of arterio-sclerotic change, and considers it reasonable to assume that a precocious senium may develop independent of early arterio-sclerosis.

M. M. RODGER.

*Abnormalities of the Pupils in Dementia Præcox* [Weiteres zu den Pupillenstörungen bei Dementia Præcox]. (Neur. Cbl., Oct. 16th, 1912.) Meyer, E.

The writer calls attention to the relatively frequent occurrence of certain abnormalities of the pupil in dementia præcox as already pointed out by A. Westphal and himself.

The following are the abnormalities which he has observed :

- (1) Slight differences in size.
- (2) Deviations from the circular form. The pupils may be oval with the long axis vertical, horizontal or oblique. Sharp angular irregularities are very rare.
- (3) Eccentric position of the pupil. This condition is present fairly often in persons who show no other abnormality, but possibly it may have importance when associated with abnormality of shape, and especially when the two conditions develop under observation.
- (4) A tremor of the iris resembling hippus, and always associated with other abnormalities of the pupil.
- (5) The reaction may be slow. Pressure on the "iliac point" of either side may result in bilateral dilatation of the pupil, and in abolition of the reflex contraction to light as long as the pressure is kept up, but restoration of the latter when the pressure is removed.

He believes that the abnormalities may be found of value in diagnosis between dementia præcox and other psychoses with which it is liable to be confused. He lays stress on the importance of using Westien's microscope or similar apparatus for their accurate observation. With regard to their prognostic value, he remarks that the alterations in pupil reactions may be very changeable without showing any parallelism with the other clinical manifestations.

He reports two cases exhibiting some of the changes referred to.

EDWARD MAPOTHER.

*Moral Changes in the Early Stages of Dementia Præcox* (Les Perversions Instinctives au debut de la Demence Precoc). (Bull. de la Soc. de Med. Ment. de Belg., Aug.-Oct., 1912.) Libert, L.

The writer of this article draws attention to Brierre de Boismont's description of a period of moral instability that often precedes the

characteristic mental symptoms of general paralysis; he finds a certain parallelism with this in the case of dementia præcox. Guilget claimed that "pre-dementés" showed a diminution of the moral faculties, that they were unsociable, apathetic, impulsive, and foreshadowed negativism by a habit of contradiction. Such individuals in civil life readily become thieves, vagabonds, incendiaries, and even murderers: under military conditions they are intolerant of discipline and frequently desert; whilst women of this type resort to prostitution, since they hate the effort required to earn a livelihood in any other way.

Dr. Libert quotes an account of a case given by Georget. A sergeant-major, lively and gentle in disposition, became morose and quarrelsome; he was feared by inferiors and avoided by his equals because he began to misuse his authority and to give way to violent outbursts of anger. Later there appeared in the case a craving for solitude, periods of inertia, extravagant conduct and negativism. The writer proceeds to describe cases of his own which showed similar changes in moral character before the onset of definite symptoms of dementia præcox.

He insists on the importance of diagnosing such changes from the lapses of moral imbecility, both from the medico-legal standpoint and from that of treatment. For this purpose he suggests that suspicions of dementia præcox should arise when analysis of the circumstances shows absolute loss of judgment with regard to the motives that prompted a moral lapse. These would be confirmed if there were also found, psychically, the inane smile, fugues, lapses in conduct, tics and grimaces, impulsiveness, negativism, docility and perseveration; physically, dilatation of pupils with sluggishness in their reactions, exaggerated tendon-jerks and diminished sensibility to pain. H. W. HILLS.

*A Psycho-analysis of a Case of Katatonia [Psycho-analyse einer Katatonie]. (Psychiat. Neurol. Wochenschr., Sept. 28th and Oct. 5th, 1912.) Ter-Ogannessian.*

This is an analysis of a female katatonic undertaken by means of Jung's association tests. The symptoms are traced to an infantile "father-complex," which directed the libido (sex cravings) to individuals who were unconsciously identified with the father, owing to certain similar characteristics. The writer traces the connection of the phantasies and hallucinations of the psychosis to the various sexual conflicts which had preceded it. The essential factor in the psychosis was a fixing of the sex cravings in a certain direction in early childhood. Their development was incomplete, and manifested, in youth and maturity, by senseless fancies and irrational affections.

H. DEVINE.

*A Contribution to the Study of Psycho-genesis in the Psychoses. (Amer. Journ. of Ins., Jan., 1912.) Slueck, B.*

This paper consists of a comprehensive study of those psychoses which develop in consequence of some strongly emotional experience, the symptoms of which disappear more or less promptly upon removal of the psychic irritant which provoked them. It includes an account of the "acute prison-psychotic complex" and Ganser's syndrome with full descriptions of several cases.

H. DEVINE.

*The Psycho-analysis of a Mixed Neurosis.* (Cornell Univ. Med. Bull., Oct., 1911.) Frink, H. W.

As an addition to the very limited number of actual cases published, this paper will be of interest to all students of psycho-analysis and the teachings of Freud and his school.

N. FOSTER.

*Parallel Attacks of Katatonic Excitement and Cardiac Weakness in a Case of Dementia Præcox* [*Accessi paralleli di eccitamento catatonico e debolezza cardiaca in un demente precoce*]. *Ann. del Manicomio Prov. di Perugia, anno 5, fasc. iii-iv, 1911.* Lucangelli.

The observation recorded in this paper refers to a patient, æt. 55, who, after an emotional shock at the age of nine, began to show indications of mental enfeeblement with episodic attacks of excitement, necessitating admission to asylum care when he was in his twentieth year. From that time he continued in a state of progressive dementia, with occasional phases of a more active insanity characterised by verbigeration, negativism and stereotypism. Recently these latter symptoms have been observed to be coincident with signs of cardiac debility—frequent and irregular pulse, increased area of cardiac dullness, with obscured sounds and slight œdema about the ankles. These signs are noted as coming on and subsiding with the symptoms of psychic agitation, and are favourably influenced by opiate treatment directed to the latter condition.

W. C. SULLIVAN.

*Mental Puerilism in a Degenerate resulting from a Fixed Idea* [*Puérilisme mental par idée fixe chez une débile*]. (*L'Encephale, April 10th, 1912.*) Capgras, J., and Terrien, E.

Three forms of mental puerilism are described—demential, constitutional, and confusional. The two first are chronic, and are due, in the first case, to a regression of the personality parallel with a regression of memory, and in the second case the result of a developmental defect. Confusional puerilism is an acute, transitory state, a dreamlike delirium, followed by amnesia. In the case described the condition was conscious and remembered. The patient was a married woman, æt. 35, who, before the onset of the phase of puerilism, had exhibited various episodic symptoms indicative of degeneracy—variable moods, hallucinations, attacks of depression, transitory and variable delusions.

The phase of puerilism was exhibited in speech, conduct, writing, play, deportment and dress. The writers explain the condition as follows: The patient, a somewhat feeble-minded woman, lived for the first twenty-five years of her life in the country, and, upon her marriage, went to live in Paris, an environment to which a woman of her mental constitution was totally unable to adapt herself. She was ceaselessly regretting her home in the country, and on several occasions had exhibited fugues in which she had wandered back to her village—thus satisfying what had become an impulsive obsession. Confined to an asylum, all her dreams were of home, and eventually her obsession realised itself in a purely imaginative delusional state which enabled her to live through her unsatisfied desires. The constitutional make-up favoured the onset of the puerilism; its fundamental cause was the fixed idea, the nostalgia.

H. DEVINE.

*Shah Daula's "Rats." Hereditary Microcephaly (Ewen's type) [Les rats de Shah Daula. Microcéphalie héréditaire, type Ewens]. (L'Encephale, March 10th, 1912.) Couchoud, P. L.*

In the Punjab are a number of microcephalic idiots, all presenting the same characters. They are called Shah Daula's rats on account of their facial resemblance to these creatures. Shah Daula is a Mussulman saint, to whom the imbeciles are considered to belong, and they are brought to his shrine from all parts of the country. Their origin is difficult to determine, and the priests who look after them furnish accounts designed to mislead. The opinion among the natives is that these microcephalics have been submitted to various forms of mechanical pressure in early childhood, producing the deformity of the cranium. Ewens, who first described these people, rejects this opinion, but suspects a paternal heredity in many cases, after an examination into the practices which occur at the shrine. Maternal heredity is also frequent, as there is no kind of protection for the microcephalic girls.

There is evidently a grave perversion of what was originally a philanthropic institution, and it would seem to be urgently necessary that these microcephalic idiots should be confined to an asylum, when the paradoxical race would eventually become extinct. H. DEVINE.

*Transvestism or Cross-dressing [Zum Kapitel der Transvestiten]. (Arch. f. Kriminalanth, 1912.) Näcke.* •

The impulse to adopt the dress and the ways of the opposite sex without any necessary change in the direction of the sexual impulse has been very thoroughly studied by Hirschfeld, who has termed this condition "transvestism." Näcke here seeks to supplement Hirschfeld's results.

He would term this condition the desire for disguise and divides the persons so affected into three classes: homosexual (including bisexual), heterosexual and asexual. The last class is based on the case of a man, thus affected, who had never had any inclination to either sex and never had any sexual dreams. There are, further, three types of cross-dressing: permanent, temporary, and intermittent. Whether the costume of the opposite sex acts in these cases as a sexual equivalent for normal gratification is a question which Näcke answers in the negative, though he admits that there are exceptions. So far as his knowledge of them goes, he does not consider that these people can be termed degenerates; in physical development and appearance they are normal.

On the whole, the impulse to cross-dressing seems to be usually inborn and becomes manifest in childhood. It appears either in heterosexual or homosexual persons, and may be associated with a sexual impulse of any degree of strength or weakness. It is a congenital perversion (not perversity), which may occur in the stupid or the clever (it seems specially liable to occur in the upper classes, in artists and in men of letters), in people of good character or of bad character, in the sane or the insane. Its medico-legal significance is usually small.

Näcke was at one time inclined to think that cross-dressing might

be regarded as a kind of fetichism, but gave up the idea since the garment in itself usually has no sexually stimulant influence. Any definite sexual aim is generally absent. It is an impulse, Näcke points out, which decidedly supports the hypothesis of a general bisexual disposition. It is to be regarded as an anomaly, a psychic intermediate stage, but certainly not as a disease.

HAVELOCK ELLIS.

*Cerebral Paralysis accompanied by Intact Pyramidal Tract* [*Zebrale Lähmung bei intakter Pyramidenbahn*]. (*Archiv. f. Psych.*, vol. xlix, No. 1, 1912.) Hoestermann, E.

This article, which is well illustrated, demonstrates four cases of cerebral paralysis with uninjured cerebral tract. The findings are analogous with those of Spielmeyer.

The cause of paralysis in such cases is to be looked for in an injury which has taken place during the development of the central convolutions. This generally occurs in the upper cell-sheaths, and the large pyramidal cells from which the pyramidal tract originates, are preserved. As a result of such disturbances in the construction of the cortex the motor cells are incapable of responding to the voluntary impulse. That is to say, although the pyramidal cells are anatomically connected with their system, yet they are physiologically isolated, and are therefore functionless.

Such cases, on account of their developmental nature, are found most frequently in children.

HAMILTON MARR.

*Three Cases of Late Recovery* [*Drei Fälle von Spätgenesung*]. (*Allgem. Zeitschr. f. Psych.*, vol. lxix, No. 4, 1912.) Kreuser.

The author published in the year 1900 an account of a number of cases of this kind, the subject being of special interest in connection with divorce laws then under consideration. The following three cases are of further significance:

The first case was that of a man æt. 35 at the onset of insanity in the year 1895. The patient was married and had three healthy children. He was suffering from melancholia brought on by overstudy. In the spring of 1899 there was a remission, then renewed depression, which reached a climax in the summer of 1900, when the patient attempted suicide. For two years after this he remained in a condition of hypochondriacal melancholia, with symptoms similar to those found in catatonia, and bordering on dementia. This was followed by a gradual improvement and complete recovery, which has now lasted for nine years.

Case 2 was that of a male, born in 1857 in India, who was married, and had eight healthy children. Confusional insanity of sudden onset occurred in 1901, it was followed by acute mania. The cause was mental stress from business worry. Later, pananoic symptoms were evident, and these were of the accentuated character generally associated with dementia. In spite of this, and of seven years' unbroken continuance of the condition, the patient recovered so far that he was able to go home three years ago, and since then has been well, although he found it rather difficult at first to accustom himself to his new sphere.

Another case of mania was that of a married woman, æt. 40. Insane heredity was noted in this case, but in neither of the others. The attack of mania was preceded by depression and followed by slight depression. After nearly seven years' illness there was a gradual recovery, which has lasted over a year.

In all three cases there were ample symptoms to warrant unfavourable prognosis.

HAMILTON MARR.

*A Case of Acute Psychosis after the Chronic Use of Veronal* [*Ein Fall von Akuter Psychose nach chronischem Veronalgebrauch*]. (*Allgem. Zeitschr. f. Psych.*, vol. lxxix, No. 4.) *Laehr, H.*

After six and a half years' use of veronal, the resulting acute insanity had much similarity to alcoholic delirium, and in its final stages to the hallucinatory insanity of drinkers. In literature no similar case is found, probably on account of the rarity of such a prolonged use of veronal.

*Case.*—Woman, æt. 53. Family history unimportant, save that patient's mother in her last years was addicted to morphia; the cause of her death is unknown. In childhood the patient was apparently lively and impressionable. She took to veronal six months after the menopause, on account of sleeplessness which supervened on domestic troubles. For six and a half years, with the exception of one month, she took from 0.5 to 1.5 grm. (about 8 to 24 gr.) every evening (the amount gradually increasing) of veronal or medinal (veronal circulates in the blood as medinal). She was admitted to the asylum on April 3rd, 1912. From that time, or certainly from April 6th, until she was discharged recovered on June 3rd, she had no veronal. She suffered from sleeplessness, showed mental confusion, incomplete disorientation as to time and place, and had hallucinations of sight and hearing. Physically she suffered from vaso-motor disturbances, as shown in increased rate of pulse and flushing of the face; muscular tremors and rheumatic pains in the limbs, twitchings of the face and variability of reflexes. The physical symptoms undoubtedly point to veronal as the cause. The effects of veronal differ from those of alcohol in that, as shown in this case, there were no disturbances of the digestive system such as are found in chronic alcoholics. The heart condition also was good, and only showed the irregularities above-mentioned after the crisis was past. The mental state was distinguished by systematised dream-like delusions of an apprehensive nature, connected with hallucinations of hearing. In these the patient was the onlooker, and not she, but her son, was the object of persecution. In this respect the delusions differed from those of alcoholic delirium.

HAMILTON MARR.

*Two Cases of Factitious Urticaria in Female Criminals* [*Due casi d'urticaria factitia in donne criminali*]. (*Ann. del Manicomio Prov. di Perugia, anno v, fasc. iii-iv, 1911.*) *Benedetti and Simi.*

The phenomenon of factitious urticaria, to which attention was first drawn by Gull in 1859 (*Guy's Hospital Reports*), has since that time been frequently observed both in healthy individuals and in persons with various nervous abnormalities, and especially in the subjects of



hysteria. Later writers have established a distinction between the slighter degrees of the condition, to which no particular significance attaches, and a more pronounced form in which the urticarial patches are raised and relatively persistent — the *dermographisme en relief* of Fauconnier. In the cases recorded in this paper, the skin reaction was of the latter type. The patients were feeble-minded women, their deficiency being fairly gross and apparent both in intellect and in affectivity. There were no indications in either case of the so-called stigmata of hysteria, nor does there seem to have been any evidence suggestive of the temperament characteristic of that neurosis. The authors put forward the view that the condition is to be regarded as a functional stigma of degeneration.

W. C. SULLIVAN.

#### 4. Treatment of Insanity.

"*Ozofluin*" Baths in Nervous Disorders [*Ozofluinbäder bei Nervenkrankheiten*]. (*Psychiat.-Neurol. Wochensch.*, Oct. 5th, 1912.) *Dammann*.

Ozofluin is an extract made from pine leaves; it is a granular substance readily soluble in water. The writer finds that baths containing this preparation are of considerable benefit in cases of hysteria, depression and neurasthenia. The appetite improves, headache is relieved and sleeplessness overcome; in addition it has no doubt a suggestive influence. Three illustrative cases are briefly described.

H. DEVINE.

*Remarks on the Prevention and Treatment of Furuncular and Cutaneous Diseases in the Insane* [*Bemerkungen zur Verhütung und Behandlung von Furunkulosen und Dermatitis bei Geisteskranken*]. (*Nach einem Vortrag, gehalten in dem Nordostdeutschen Verein für Psychiatrie und Neurologie am 8 Juli, 1912, in Danzig.*) (*Psychiat.-Neurol. Wochensch.*, No. 25, Sept. 1912.) *Luther, A.*

The class of skin affections which are the subject of this paper are those which occur as secondary results of the treatment of the insane by prolonged baths and the wet pack. Of most frequent occurrence are furunculosis, eczema from simple dermatitis to the papular and impetiginous forms, and ringworm caused by the genuine *Trichophyton tonsurans*. The possibility of the wide diffusion of the latter affection in institutions is shown by the fact that 150 cases occurred in Würth's clinique at Hofheim without the epidemic having reached its limits. In Dr. Luther's, on the other hand, at Lauenburg, the disease only appeared sporadically, and in men exclusively. This predilection for the male sex is particularly emphasised.

As preventive measures the scouring of copper baths with brickdust to which denatured spirit has been freely added is recommended, while enamel baths are washed out with 10 *per cent.* formalin solution. Frequent sterilisation of towels and rollers is done as a matter of course.

As a prophylactic inunction of the body before the bath with lanolin or vaseline is advised. After the bath Werner has the whole body

rubbed with French brandy with a view to hardening the bath-sodden skin, and rendering it less susceptible to the entrance of disease organisms—a somewhat troublesome and costly proceeding. Friction with spirits of camphor with subsequent powdering has also been tried, but it must be confessed that none of these measures afford certain protection.

Internal treatment of furunculosis with preparations of yeast gives only uncertain results, and may be left out of consideration, except in cases of diabetic origin.

As regards the local treatment of furuncle crucial incisions have been universally abandoned. Healing is only retarded, and the patient retains lasting (? unpleasant) recollections of his physician. Punctures with a view to relieve tension stand on a different footing.

Schüle practises central cauterisation with Paquelin, after previous injection with novocaine, but patients are hardly likely to submit to this treatment in any great number. Moist starch applications are condemned as tending to generate quantities of contagion; if pasteboard is used at all, a boric solution of aluminium acetate is far preferable.

Bier's suction treatment, especially if the neighbouring parts are painted with ol. rusci or something similar, may be employed occasionally, but hardly conduces to rapidity of healing.

The best method in hospital practice is preventive treatment. Carbol mercury and salicylic soap plasters, which were formerly used, have given most unsatisfactory results, the furuncle in the majority of cases going on to suppuration.

One American authority recommends covering the furuncle with a compress of cotton-wool soaked in glycerine of carbolic acid; another the injection of 5 to 10 *per cent.* solution of the acid.

Dr. Luther himself has for some ten years past been in the habit of painting the commencing furuncle and adjacent parts with 5 to 10 *per cent.* salicylic collodion. If this treatment is employed sufficiently early the furuncle in most instances dries up; in other cases, where it has gone on to softening, it remains small, and only a little thin pus forms. The advantages of this method are its simplicity, the speedy removal of painful tension, a high probability of preventing further infection, and frequently resolution without suppuration.

With the advent of the iodine era in surgery he tried painting with iodine tincture, the tanning and contracting effects of which resemble those of collodion. Under this treatment the furuncles are often seen to shrivel up. The use of water must, of course, be absolutely avoided, otherwise the action of the iodine will prove illusory. The special idiosyncrasy of women with respect to iodine must not be lost sight of.

As regards bath eczema, baths—the *causa nocens*—must be discontinued; then powders and a desiccating paste bring about a speedy cure. Luther agrees with Küster that in the case of a particular kind of infectious eczema described by the latter, in whose clinique it had occurred, if protracted bath treatment is continued cure is impossible.

In Luther's experience trichophytiasis only occurred sporadically, and took the form exclusively of herpes tonsurans maculosus and squamosus. It commences invariably on the inner aspect of the thigh, from which it

spreads extensively, but always leaves the head free. Kraepelin recommends for this painting with tinct. iodi or solution of resorcin. Würth uses applications of sulphur-naphthol desiccating pastes and Lassar's red salve. For some years past Luther has found 5 to 10 *per cent.* chrysarobin collodion stand him in good stead; in recent cases one daily painting generally suffices. The tincture of iodine which he tried by way of comparison gave far more uncertain results.

After this survey of the most important methods of treatment Luther mentions one exceedingly simple measure, which has proved most satisfactory as used by him for some ten years past, especially in the prevention of these diseases, and which allows of the continuance, in part at least, of hydrotherapy in the form of the wet pack. This consists in the substitution for water of partial or complete packings with 3 *per cent.* solutions of boric acid. In all patients who show any tendency to skin irritation or disease, or even to scratching, he uses this boric solution. The amount of fluid required for a pack is  $\frac{1}{2}$  to 1 litre, three tablespoonfuls, water level, of boric acid, corresponding to about 30 grm. of the acid, being dissolved in 1 litre of water. The cost of the pack is from 2 to 3  $\frac{1}{2}$  pfennig.

No injurious results have been observed. In view of the innocuous nature of boric acid such would be improbable. Although its bactericidal action is but slight, practice teaches us that it is sufficient to arrest the growth of organisms. If the rollers are allowed to dry on the patient the boric acid becomes deposited on the body in the form of very fine powder, which acts subsequently as a certain protective.

Bath eczemas are, as a rule, readily cured by this pack treatment, and it does not contra-indicate painting with salicylic or chrysarobin collodion if it is allowed to dry sufficiently. These dressings are most satisfactory in the case of decrepit patients with superficial suppurations or furuncle, in whom a complete cure is obtained within a few days. If too great loss of heat is apprehended in such patients the solution can, of course, be applied warm.

In order to prevent skin diseases occurring during treatment by prolonged baths, just as in the case of wet packs, boric acid should be added to the water. The possibility of patients being poisoned from drinking the water in quantity, as they do, is an objection, and the method would be rather an expensive one. As in most cases, for a time at least, packs can be advantageously substituted for baths, there is no urgent necessity for any premature settlement of the question.

#### T. DRAPES.

*The Development of "Boarding Out" from the Royal Asylum at Zwiefalten [Die Entwicklung der familien Verpflegung der Königl. Heilanstalt Zwiefalten]. (Allgem. Zeitschr. f. Psych., vol. lxi, No. 4.) Gutekunst.*

Patients were first sent out from Zwiefalten about the year 1879. Several of them left the institution in the morning and worked at different handicrafts or farm work during the day, and either returned to the institution at night or remained in the houses of their guardians. This practice was stopped in 1875, and boarding-out was started in 1896. From that time until 1911, 191 patients (91 men and 100

women) were boarded out. The rise and fall in the boarded out population during these years is shown by charts. There seems to be a gradual rise to the year 1902, and then a fall to the year 1911, when there remained only five men and one woman. This decrease is not due to faults in the system, which is strongly recommended, but is accounted for by a difference in the class of patients now admitted to Zwiefalten. Several instances are quoted of the happy relationships of boarders and guardians, and of the care taken of patients who have attained old age in the service of their guardians.

The cases found most suitable for boarding out are those suffering from dementia præcox, and especially hebephrenic patients, who often, by association with the different members of a family, and by farm work, are roused from their apathy.

The patients are boarded out in the neighbourhood of the asylum, and the home life of the German crofter seems to be particularly well adapted to receive boarders, who are treated as members of the family. As is the custom in Germany, the patients are visited frequently by the medical officers of the asylum from which they are boarded out. The number of imbeciles boarded out was only 23 per cent. of the men and 25 per cent. of the women. The boarders, for the most part, as above mentioned, were cases of dementia præcox. There was also a large contingent of chronic paranoics.

Out of 86 men boarded out, 19 returned to the institution on account of bodily illness; 15 were discharged recovered; 11 had to be sent back to the asylum on account of temporary excitement (for the most part the result of visits to the tap-room); 10 returned of their own accord; etc.

Of 99 women, 23 returned on account of bodily illness; 16 were sent back on account of a tendency to escape; 13 were sent back on account of a temporary excitement; 12 returned of their own accord; etc.

HAMILTON MARR.

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### 5. Pathology of Insanity.

*Clinical and Pathological Observations in Simple Melancholic States*  
[*Considérations anatomo-cliniques sur les états mélancholiques simples*].  
(*Rev. de Psych.*, June, 1912.) Marchand, L.

Melancholia in all its forms has been studied very thoroughly from a clinical standpoint, but the changes in the brain have been little noticed. References are given to some studies, however, and noticeably to the work of English authors, whose papers have been published in this Journal—in particular the theories of Turner and Hollander are quoted at some length.

In the present paper Marchand records full clinical and pathological notes of five cases—two of acute melancholia, and three of melancholia with stupor.

In the acute cases, the lesions in the brain were diffuse, but most marked in the frontal lobes; the meninges were adherent, the pia and cortex infiltrated by embryonic cells, slight perivascular inflammation

affecting scattered vessels ; the myelinated fibres were unaffected, and little change was seen in the neuroglia.

In the stuporose cases, the lesions were similar, but in addition a slight sclerosis of the molecular layer of the cortex was present, and in two of them there was degeneration of the tangential fibres.

This explains the possibility of complete recovery in melancholia, especially under the influence of some intercurrent affection. In such cases one may suppose that the anti-bodies produced during the course of an acute disease may cause the disappearance of the encephalitis, which has not resulted in any marked change in the more important brain structures, *i.e.*, the main cortical cells and the association fibres ; hence the patient may regain full intelligence.

These lesions must not be looked on as characteristic of melancholia. They are similar to those found in other states which have a similar mode of evolution. The type of psychosis will depend on the character of the mental soil upon which they operate, that is to say, on the hereditary tendencies, the temperament, and the habits of the patient.

W. STARKEY.

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## 6. Sociology.

*The Position of the Expert in Italy [La crisi della Psichiatria Forense in Italia]. (Psiche, Sept.-Oct., 1912.) Assagioli, R.*

The question of the expert's position in the courts appears to have become acute in Italy, and, in view of proposed legislation, Dr. Assagioli, writing as an alienist and psychologist, sets forth his opinion of the question and the reforms he proposes.

By making private inquiries among persons of the educated and professional classes (including medical men who are not alienists), Assagioli finds an attitude of "dis-esteem" towards experts, really impressive in its unanimity, and not seldom carried to the point of bitter hostility. It is an attitude which may easily extend beyond the medico-legal experts to embrace psychiatry, psycho-pathology, and psychology generally. So general and concordant an opinion cannot be without some kernel of truth, and Assagioli attempts to discuss what that "kernel" is.

He finds two sets of causes at work here, the first of general character, the second more special and dependent on legislation and the procedure of the courts.

In the first group he is inclined to attach importance to an excessive "anthropologism." He considers that the influence of Lombroso, valuable as it has been in many respects, has led to a tendency to attach undue importance to minute physical details set forth in highly technical language, the result being that the general public are apt to suspect, in the presence of all these measurements, diagrams, and photographs, that the question of responsibility has been made exclusively a question of physical anomalies. The predilection of Italian alienists for anthropology is accompanied, Assagioli believes, by a contempt for psychological studies. In their enthusiasm for the

positive method they fail to realise that ideas, emotions, and impulses are just as positive facts as anatomical details. Moreover, even so far as they study psycho-pathology, they generally do not understand that a preliminary study of normal psychology is necessary if the threshold of the abnormal is to be clearly seen.

Turning to the group of special causes, Assagioli finds that on all sides public indignation is expressed at "the noisy psychiatrical disputes in the courts, making science absurd."

Here Assagioli refers to the arguments of Tanzi and others, who point out that psychiatry really is not a rigid mathematical science, and that therefore an open and serene discussion among several experts is necessary to obtain a reasonably sound opinion.

That is true, Assagioli agrees, but, he adds, a very important point is overlooked. The very fact that psychiatric science is still imperfect, and that a more or less ample margin must be left for the expert's personal interpretation of it, renders it all the more necessary that the expert's opinion should be freed from every perturbing influence. But as things are, the expert who is called by one side and feed by that side, however scrupulous and honest he may be, is placed in a delicate psychological situation. He cannot take up an absolutely impartial position—the very fact that he is called by one side places on him a moral and psychological compulsion to do his best for that side. Moreover, as he is aware that the experts on the other side will emphasise a different set of facts, he feels all the more bound to emphasise the opposing facts, which would otherwise be overlooked. It is this false position of the expert, Assagioli believes, which chiefly, and justly, arouses the indignation of the educated public.

Assagioli recommends that (1) two or three experts of *known competence* should be nominated by the judge at an early stage of the case; (2) then, if they agree, to present a full and amply documented written report, and one of them to summarise it in court in the simplest language; (3) in case of disagreement, separate reports to be made on points of difference, and the experts allowed to state briefly in court the grounds of difference; in any case the experts to be present in court to furnish elucidations asked for by either side or by the judge; (4) fees of experts to be in accordance with the time and labour involved, and the defence to be rendered liable by law for part of the cost. The essential point is that the expert should be absolutely independent, morally and materially.

HAVELOCK ELLIS.

*Mental and Physical Peculiarities of the Hindoo Ascetic. (Monthly Cycloped., June, 1912.) Mason, F. S.*

It is usually difficult to obtain permission for precise physiological examination from sincere ascetics, and in no case has the author had an opportunity of making an autopsy. He brings together, however, a number of interesting observations. There is a general lack of muscular tone. Dreams are felt to be so real that they are comparable to insane hallucinations. The sincerity of the ascetics is nearly always unquestionable, even in the case of the anchorites and Mohammedan fakirs who frequent Indian fairs. Their power to endure pain and torture is

of the same kind as that of the early Christian martyrs. These extreme devotees are drawn from the lower castes. The true yogis are recruited from the higher castes; many have had a university education and speak good English. Mason met with two who had studied medicine and were familiar with modern psychiatry. They usually abandon civil life between the ages of thirty and forty, with the approval of wife and family, exchanging affluence for ascetism. They begin with isolation, meditation and mental concentration; they repeat stereotyped mystic phrases (mantrams) while submitting to painful exercises, and finally reach a state of "illumination," a condition in which conscious reasoning is limited and the subconscious mind has come to the surface. Both the low-caste anchorite and the true yogi reach illumination by suppressing ambition and natural appetite. But the aim differs. The wretched and filthy anchorite is moved by the desire to secure comfort and power in some future re-birth; the yogi desires moral and intellectual advance in future incarnations, and it is his ultimate aspiration to be absorbed in the soul of the world and so avoid any further re-incarnation at all. Mere death and re-birth he attaches little importance to; it is no more than sleeping and awakening. It is only by dying during life that progress can be made.

"Illumination" is aided by various breathing exercises, with pauses between inspiration and expiration; some twist their tongues down their throats, partially covering the epiglottis, and are able to maintain this "suspended animation" for several minutes. They believe that by thus "saving their breath" they can prolong life. The anchorite fakirs, who are not true yogis, move from place to place, and may often be found in complete solitude, practising their tortures, sitting on spikes of iron, gazing at the sun, etc. There are vast numbers of them, and they constitute great corporations with influential and intelligent leaders. They could do great mischief, if they chose, by spreading sedition. But they uphold the British Government and preach submission to its authority. They also welcome the sanitary arrangements made for their benefit and the diminution of epidemics. The Government wisely interferes with them as little as possible.

Mason considers that the state of yoga closely resembles the subconscious state of normal sleep. The yogi appears to be in a state of permanent resting consciousness as regards the reasoning power which causes fatigue and requires rest; there is an "artificial and pathological derangement of consciousness." Mason found thought-readers among the yogis; one man could speak aloud foreign words which Mason read mentally in a book, and while in another room could make an exact copy of a letter which Mason wrote in French. Mason attaches, however, little importance to these feats (also practised by professionals at the music-halls) as an element in yoga. More remarkable he considers their power to control visceral innervation. One man could apparently cause his heart to cease beating for almost two minutes. Several Hindoo physicians of undoubted veracity assured Mason that yogis can so stimulate peristalsis that water can be traced running through the intestines and recovered from the rectum within a few minutes of swallowing. Mason met with one man who could withdraw his testicles from the scrotum into the abdomen. It is difficult, how-

ever, to induce yogis to make experiments, as they are not amenable to motives of curiosity as love of gain.

If the yogi renounces his practices, returns to ordinary life and pays proper attention to diet, he regains normal consciousness and loses his peculiar powers.

HAVELOCK ELLIS.

*Mental Debility in the French Army* [*La débilité mentale dans l'armée*].  
(*Rev. de Psychiat.*, April, 1912.) Simonin.

In this paper, read at the Tunis Congress in April of this year, the author summarises the results of his clinical experience in the military hospital of Val de Grace. He states that feeble-mindedness is frequently met with in military practice, and is the chief cause of disciplinary offences. Cases of mental deficiency are about three times more frequent in volunteers than amongst conscript soldiers, and are also more usually associated in the former class with serious aberrations of conduct. The ordinary routine of army life affords a very fair test of adaptability to environment, and serves accordingly to sort out the weak-minded. Further evidence in doubtful cases may be found in the personal history of the patients, which usually shows dulness at school, instability of temper, and incapacity for sustained effort; and much assistance may also, the author thinks, be obtained from physical examination, which in most cases reveals the presence of numerous stigmata of degeneration. In discussing causation, Dr. Simonin lays much stress on parental alcoholism, especially in cases where there are indications of epileptic tendency. With regard to the measures to be taken from the point of view of military efficiency, the author, while disposed to admit a temporising attitude in cases of slight defect, would advise in general that the feeble-minded should be promptly removed from the army in their own interest and in that of the service.

W. C. SULLIVAN.

*The Defective Delinquent Class Differentiating Tests.* (*Amer. Journ. of Ins.*, vol. lxxviii, No. 4, April, 1912.) Fernald, G.

The author of this paper, who is physician to the Massachusetts Reformatory at Concord, describes a series of tests which he has utilised as an auxiliary method in grading mentally deficient inmates of that institution. The tests employed are as follows: (1) weight discrimination by serial arrangement; (2) extent of movement estimated by average error; (3) Holmgren's colour vision test; (4) tapping test of movement; (5) three-hole test of speed and accuracy; (6) achievement capacity test (new); (7) cancelled numeral test of attention; (8) calculation test of association; (9) Kent's and Rosanoff's uncontrolled association test; (10) recognition memory test; (11) ethical perception test; (12) ethical discrimination test (new). It will be observed that the majority of the tests are familiar, but the author has introduced modifications in the application of some of them, and two—the achievement capacity test and the ethical discrimination test—are new, at least in the systematic form in which they are here presented. The achievement capacity test consists in measuring the time during which the individual under examination can stand on his toes with his heels raised more than a quarter of an inch off the floor. A rough test on



this principle is, of course, often used in cases of neurasthenia, but Dr. Fernald has elaborated it, and rendered it more accurate and practical, by devising a simple apparatus to ensure the correct position of the subject during the experiment. In the ethical discrimination test the subject is required to arrange a number of offences in the order of their gravity; as the author is careful to point out, this is an intelligence test, but from the use of ethical notions as integers it may help to throw some light on emotional defect. Dr. Fernald mentions that he is now trying an extension of this test by asking a similar gradation of meritorious acts and of ambitions. In computing results the author has employed a rather intricate system, the utility of which is not very obvious, especially as it is proposed merely to compare the defectives with one another, and not with any standard of normality.

W. C. SULLIVAN.

*The Present Status of the Binet-Simon Graded Tests of Intelligence.*  
(*The Alienist and Neurologist*, May, 1912.) Wallin, J. E. W.

The Binet-Simon tests promise to become a recognised part of the technique of abnormal psychology, so that it is of importance to know how much reliance can be placed on their accuracy.

So far the examination of an individual has been confined to the exhibition of tests appropriate to his physical age, and to those belonging to one or two lower or higher age-standards. Dr. Wallin insists on the great variability of mental traits, and protests against this "narrow-range testing." From a series of observations he has made on epileptics it appears that some who could pass only the lower age-standards were successful with many tests assigned to higher ones. Examined by statistical methods the results showed that the six and nine age-standards are too difficult; also that many tests are too easy, others too difficult for the ages to which they have been assigned.

However, with all its imperfections, this objective measuring scale is far more accurate than unaided observation. Dr. Wallin instances the case of a patient in the terminal stages of dementia præcox. According to his clinical records, the man had been gradually becoming more demented for seven years. On being examined he passed almost all the highest tests in the scale; so that it would appear that this method is a valuable one for analysis where dementia is more apparent than real.

The writer considers Binet's 1911 revision imperfect, since the reduction in the number of tests for each age-standard renders the latter less accurate. He suggests that, for strict comparison, the method of applying the tests should be noted in each case, and urges the necessity for the determination of the maximal amount of variation allowable in normal age norms.

H. W. HILLS.

## 7. Asylum Reports.

### *Some English County and Borough Asylums.*

*Carmarthen.*—There is many a slip between the cup and the lip, and this has occurred here. It has been before noted that, on account of

the failure of the three contributing bodies to agree about further accommodation being provided, the patients have been in far from the best circumstances for adequate treatment. The Visiting Committee reported to their authorities that agreement had been come to, and on that contracts for more land were submitted to the Home Office and approved by that authority. But we learned from a later report of the Commissioners that dispute had broken out again and the scheme for enlargement had been indefinitely postponed. It is hard to believe that out of an average population of 700, 100 are in excess of the number for which proper accommodation has been provided. The Commissioners threaten that if the work is not undertaken at once they will insist on the excess being boarded out. This step, we think, will bring home to the rate-payers the cost of bad administration, and thus lead to the remedying of matters more important even than overcrowding.

Dr. Richards gives his readers some sound advice on the production of insanity in his and similar areas. Among other remarks are the following :

It has to be borne in mind, however, that in a considerable proportion of cases alcoholism is merely a symptom of graver underlying degeneracy, drink in small doses being often sufficient to bring to light mental abnormalities which would otherwise pass unobserved to the next generation, to be then reproduced on a more extensive scale.

It is to be hoped that when the Home Office builds for criminal imbeciles under the Mental Deficiency Act it will have room enough left for its criminal lunatics. If it is worth while for that Office to take imbeciles under its immediate care, it is surely worth while, and urgently desirable, for it to keep its own lunatics.

Four of the admissions were criminal patients, an undesirable type, whose introduction into ordinary asylums is becoming increasingly common, and is much to be deprecated. These cases add considerably to the dangerous element, which is already sufficiently prevalent.

*Cumberland and Westmoreland.*—Dr. Farquharson adverts to the decrease in the population which has been going on steadily, more pronounced in the year under review. He cannot hazard any suggestion for this other than the general decrease of population in the two counties, shown by the last census. But, as he says, this is due chiefly to emigration of the younger and more healthy of the people, and it may lead to a greater proportion of mental defect later on. He can show for the year the highest recovery-rate that has been obtained in the last ten years in the asylum, namely, 51 *per cent.* on the total admissions. It may be partly explained by the fact that 50 *per cent.* of the patients were brought to the asylum within a fortnight of onset and another 30 *per cent.* within three months.

*Derby Borough.*—The information which Dr. Macphail usefully gives about the relapses of those discharged recovered is that the average period of remission was six years and eight months. If such information were given by every medical superintendent very useful knowledge would be obtained. Of his 165 admissions no less than 94 had threatened or attempted suicide and 63 had similarly threatened or attempted homicidal attacks. He notes that the period of residence in cases of recoveries tends to be more prolonged, especially in the cases

of melancholia, which are generally admitted with impaired health and lowered vitality. Of the 28 recoveries 7 had an ætiology of influenza. Following up this pernicious factor we find that in the 72 direct admissions it was assigned in 5 cases, being correlated twice with insane heredity and once each with sudden stress and the climacteric period.

*Derby County.*—The Visiting Committee having reported that the time had come for providing further accommodation, it was decided by the county that another asylum should be built in the northern part of its area. It was determined that any increase to Mickleover would be very unwise. Accordingly a considerable sum of money was voted for land, and no doubt by this time good progress has been made with the plans.

A mother and two daughters were admitted together. This would seem to be a family record.

Dr. Legge supplies the following information which supports the pleas put forward for pension on a liberal scale :

The risks run by the staff who have to deal directly with the patients are well shown by the following list of accidents for one year : Nurse, hair torn out and mouth cut ; laundress, head and hand bruised ; attendant, face bruised ; nurse, hair torn out and arm bruised ; nurse, knee bruised ; attendant, black eye ; nurse, hair torn out and set of artificial teeth broken ; nurse, temple cut ; attendant, bitten on leg. The above were all inflicted by patients.

We note that Dr. Legge assigns prolonged mental stress in 5 cases only out of 203 admissions. This is a far lower rate than is usual. In each case it is assigned as a contributory factor. This we think must be right. In some asylums these stresses are treated entirely as principal factors. In only one of these cases is there correlation, and in that it is with congenital mental defect, not amounting to imbecility. One would be disposed to look on such stress as bad mental hygiene facilitating the action of some determining factor, so unimportant as to escape attention as such. We note that among the fifty-nine recoveries, two had this ætiology of stress.

The Committee makes sympathetic reference to the death of Dr. Murray Lindsay, who was for many years their valued officer.

*City of London.*—Dr. Steen is afraid that before long the rates for both private and rate-paid patients must be raised in view of the increasing price of necessaries, and believes it will certainly be so if Lord Wolmer's ideas are put into force. This would be a great pity in the case of the private patients who pay from one to two guineas per week. There is no greater boon to the insane than the provision of good care for those just above the limit of dependence. Stone is one of the few places where this class can be well entertained at a cost within their reach. The number of them exceeds three hundred, and the total income of the asylum is derived one third from the rates and two thirds from private patients. A case was discharged recovered after eight and a half years' residence. A general paralytic was readmitted after a remission of two and a half years. A former patient came back in a pouring rain and asked to be admitted, but had to be refused. The remedying of this is one of the points which will need to be pressed on our legislators, when several matters long overdue are properly treated under the Lunacy Law.

*East Sussex.*—Among the *post-mortem* finds, Dr. Taylor reports the following in a recently admitted patient: five crochet hooks, sixty-one needles, and several pieces of hair-pin swallowed before admission. It is not surprising to learn that she died of perforation followed by peritonitis. In mentioning the substitution of six spray baths for four of the ordinary type on the male side, he states that they are found to be a great improvement; they are safer, the bathing can be done more expeditiously, and quite as effectively; the patients prefer them, and they save much water. The engineer found, on actual tests, that the saving of water was  $22\frac{1}{2}$ th gallons per patient bathed.

The following notes are taken from the report of the Engineer :

REPORT ON STEAM COAL COST WITH UNDERFEED STOKERS AS AGAINST  
HAND FIRING.

The mechanical underfeed stoking apparatus, which was fitted to the three Lancashire boilers, has now been working about seventeen months. The Chairman of the Stores and Works Committee requested me to prepare a statement showing the comparative cost of steam coal used in the boiler-house for a twelve months' period previous to and since its adoption.

The consumption of Welsh coal for one year :

October 27th, 1909, to July 24th, 1910 } by hand firing.  
July 25th, 1909, to October 26th, 1909 }

Tons.	Cwts.		£	s.	d.
2245	15	costing . . . . .	2563	17	11

and the consumption of Insdale peas and slack for one year, October 27th, 1910, to October 26th, 1911, by mechanical stoking, was :

Tons.	Cwts.	Qrs.		£	s.	d.
2614	6	1	costing . . . . .	2063	3	2

a difference of £500 14s. 9d. To this must be added £32 16s. 8d., representing forty tons of coal *extra*, which have been used this October as against the same period last year. This was owing to the heat being turned on to the wards earlier this year.

This brings the actual total saving for the twelve months to £533 11s. 5d. The total cost of repairs carried out to this apparatus during the seventeen months' working was £1 17s. 9d., but the plant being new it was not to be expected that many repairs would be required.

The repairs to firebars under the old system cost about £20 per annum.

These stokers can be considered quite satisfactory, and have given no trouble in working during the seventeen months they have been installed.

*London County.*—The total number of the insane of all kinds in London has gone up by 530 during 1911, this being a slight increase on the average of twenty-three years. The asylum population has increased in the same year by 271, this being well below the average for the same number of years, of 469. But it is a greater increase than that of the two preceding years. Perhaps when the eleventh asylum is opened that tide will turn the other way, and the asylum will show a greater relative increase than the other institutions. At present the increase in non-asylum patients probably depends mostly on the shifting of people from the asylum to the Metropolitan Board's institutions. The Committee complain of the want of proper organisation in the assignment of receptions between the latter and the asylums, many coming to the asylum who should be sent to Caterham or Leavesden. Regarding the time of year in which patients are admitted the Com-

mittee continue their table of months, wherein, as before reported, it is curious to note that the maximum of each year's admission during the last eight years occurs in only the three months, May, June and July, while the minima are invariably found in the six months September to February inclusive. The plans of the eleventh asylum have been prepared by Mr. Clifford Smith, the asylums engineer; 2,066 patients will be accommodated. The estimated cost of building, engineering and equipment is a little over £500,000. The land is already provided for in the Horton estate. The Maudsley Hospital has at last been commenced. We shall refer to it again when dealing with Mr. Clifford Smith's report. In dealing with the very large proportion of return cases from recoveries, attention is drawn to the fact that the five older asylums contribute a heavier proportion of relapses than the five newer asylums. While admitting the difficulty that medical superintendents have in coming to a correct decision as to recovery, the Committee does not offer any explanation of the curious fact. It is stated, with considerable justification, that nowadays the majority of cases are not in a true sense "curable." This, we think, will be borne out by most. When asylums were the *habitat* of the acute and active cases chiefly, the insanity contained was often an accident, so to speak, in the life of the patient. But now that the asylum has, from economic considerations, become the home of the degenerate, since degeneration is permanent, the so-called recoveries are at best remissions in permanent disease or defect.

Of 57 cases whose settlement was adjudged to the county only 13 belong to the British Isles; the remainder are a miscellaneous lot from Europe, Asia, Africa and America, 35 coming from outside the Empire. Deportation of alien lunatics is carried on with energy. The maintenance cost has increased by 2½*d.* per week, this being due chiefly to increased cost of provisions and to the new superannuation allowances coming on to maintenance under the new Act. Appropriate and grateful reference is made to the resignations from the London County Council staff of Drs. Seward and Bond. Referring to the proposed limitation of working hours in asylums and to the proposed amendments to the Superannuation Act, the Committee relates that it has suggested that power should be given to allow those who contracted out of the Act an opportunity to reconsider their position. We heartily endorse such a proposal, feeling sure that many, through misapprehension, went out without duly considering their best interests.

Among the reports of the various medical superintendents we make the following notes. Dr. Stansfield at *Bexley* states that a family history was obtained in 143 of the 194 male admissions, and that a history of insanity in blood relations was found in 56 *per cent.* In 25 *per cent.* the taint came from one or both parents. In only 5 *per cent.* was insanity in the family denied. One had as many as seven insane blood relations. In the female admissions all these ratios were considerably higher, 79 *per cent.* having blood relations insane, one having no less than nine. Parental insanity was admitted in 39 *per cent.* Regarding alcohol, the history in male parents was found in 23 *per cent.* of the males and 24 *per cent.* in the females. Even this high percentage does not satisfy Dr. Stansfield as being exhaustive. He points out that

the inquiries only relate to statements made at the asylum by the friends. He thinks that domiciliary visit and inquiry would yield more history.

Each year we have pointed out Dr. Stansfield's figures showing the preponderating amount of evidence of syphilis in the general paralytics under his care. Referring to these figures he states that more precise methods of investigation have proved the accuracy of his views, for which he has been criticised (certainly not by us) and accused of over-stating the case. Eighty-five cases were submitted to lumbar puncture, and part of the product in each case was treated at Bexley by the Nonne-Apelt and Noguchi's tests and part was sent to Claybury to be treated by Dr. Mott with the Wassermann test. At Bexley in sixty-seven cases all three tests were positive and each case was one of general paralysis; nine (control cases) were negative to all the tests and none were paralytic; nine were positive with the first two and negative with the Wassermann; of these three were paralytic, one was a case of congenital syphilis, two had syphilitic brain disease and two were primary dementia cases; the remaining case was positive to the first two tests, but at the time indeterminate to Wassermann, and is clinically a well-marked case of paralysis in a woman. Of the twenty-three persons who died and were submitted to *post-mortem* examination the results in every case fully confirmed the diagnosis of general paralysis.

Tests made by Dr. Mott on the blood of forty-two of the same series of cases harmonised with the foregoing results, though in two cases Wassermann on the cerebro-spinal fluid acted in the opposite direction to Wassermann on the blood.

A somewhat severe epidemic of enteric fever caused a large amount of scientific inquiry. Twenty-one cases occurred with four deaths. The water and milk having been found quite blameless, extensive inquiries were made into the history of each inhabitant of the focal ward, and Widal examinations were made of patients and staff. Some of the cases appeared to have been due to importation from the neighbourhood, where its occurrence synchronised with the asylum attacks, but one carrier was found who had had enteric three and a half years before. He recently gave a positive Widal reaction, and has been removed to the isolation hospital for precaution. Clinically the following notes were made: Tepid or cold sponging in those cases where there was much fever markedly diminished the intensity of the disease; almost entire absence of diarrhoea, only one case occurring; in only two cases was there hæmorrhage, and then slight; the incidence of bone disease in three patients, one of whom has her sixth periosteal abscess. From all these last cases *B. typhosus* was isolated.

Dr. Stansfield is able to report that special subjects are studied in the laboratory by each one of his assistants. The industry of the laboratory appears to be rivalled by that in the workshops, which produce a prodigious amount of result, spread over many trades; 9,800 yards of tweed and serge woven, together with 2,858 articles made in the tailoresses' shop, are samples of production which make one think.

*Colney Hatch.*—Dr. Gilfillan, who has succeeded Dr. Seward, pays a handsome tribute to his predecessor. Among the clinical data are several references to the experiences acquired in respect of patients of the Jewish faith. These form a considerable proportion of the total

population—about 20 *per cent.* As they number 466, special provision is made for their religious observances and for their food. At the same time they are sufficient in number to afford statistical and clinical data of value. The relative incidence of tuberculosis and syphilis with their liability to general paralysis and other forms of disease form enticing subjects for study. This is being undertaken by Dr. Elgee, and will doubtless be duly communicated. Unfortunately, religious scruples on the part of their relatives lead to persistent objection to *post-mortem* examinations, and consequently a large field of observation is thus shut off. In giving an account of the structural alterations now in progress, Dr. Gilfillan frequently refers to the need for light, air and cheerfulness to meet the requirements of new methods of treatment, such as the hospital idea. Colney Hatch is now over sixty years old, and would no doubt require much remodelling in these particulars, but it was built and has been added to and altered when progressive ideas had laid hold of the authorities responsible for the insane. It is somewhat surprising that these well-meaning people did not then grasp the advantages to be got from liberal measures in building. At the present time we may be sure that enlightened committees will recognise that the extra money spent to obtain these all-important advantages is a sound investment, since their possession will obviate for ever most of the expensive remodellings that are required in those asylums where such requirements were not fully studied.

We are glad to see that here, too, the cult of honest work is much pursued. The workers are so numerous that new shops are an urgent necessity. Dr. Gilfillan can show a good tale of labour of various sorts for both sexes, especially on estate work for the males.

*Hanwell.*—Dr. Percy Bailey found heredity of insanity and epilepsy in 35 *per cent.* of all his admissions where reliance could be placed on the statements of the relatives. He gives an amusing case, illustrative of the mendacious instincts of friends. A sister came to give the history of a male patient recently admitted. She spoke of her mother as being eccentric, though, as was subsequently discovered, that mother was actually in the asylum at the time. In touching on the proposal to practise sterilisation, he refers to the conclusions arrived at by Dr. Daniel in a paper recently read before the Association. The broad results are that where parental heredity had been ascertained, only a small proportion of these (representing less than 2 *per cent.* of the total admissions) would have been affected by the parent's sterilisation, the insanity of the parent first occurring after the birth of the patient. Marked vascular degeneration was found in a large number of cases, and must be regarded as a very potent factor in the causation of insanity. In excluding cases where syphilis and disease of the kidney were in evidence, 13 *per cent.* of the male admissions between the ages of forty and sixty were suffering from grave arterial degeneration. Of these the great majority revealed in their history no hereditary taint of any kind. Dr. Bailey shrewdly suspects the insidious effects of nicotine as a cardio-vascular poison. Syphilis in positive form was found in 100 *per cent.* of the female and in 60 *per cent.* of the male general paralytics admitted. In reference to the Association's nursing examination, Dr. Bailey laments the want of success on the part of some of his candidates.

This he attributes mainly to their scholastic shortcomings making it difficult for them to cope with the written portion, whereas a very large percentage of the same passed a very thorough and searching practical examination. This experience is by no means uncommon, and proves that the hopes of progress from the improved educational system of the present day are not fulfilled. It is an unhappy, though burning question. It is obvious that the selection of well-educated candidates for employment would solve the question, but, assuming that these could be obtained with convenience and at no impossible expense, it is quite likely that the practical nursing power would not be so well developed in them.

At *Horton* Dr. Lord deprecates the admittance of five criminal lunatics in the course of the year, making twenty-four since 1907. He claims, as we do, that the Home Secretary should look after his own. He will have the chance of doing so under the Mental Deficiency Act. Dr. Bartlett has ready for publication the results of inquiry into the genealogy of a criminal family, covering five years, and dealing with the sane as well as the insane members. This should be instructive. Dr. Lord thinks that the correlation of a clinical type of disease with its cause is of great importance. A case may present all the typical disorders associated with alcoholism, yet the amount of alcohol may be small, though efficient, while in the same case mental stress may be very prominent. There is a danger that, unless care is exercised, the latter may attract undue attention at the expense of the former. He points out, too, that while alcoholism occurring in a parent before the procreation of the patient should receive all proper attention, if special care be not taken the alcoholism acquired after procreation may be exalted to equal importance. He is no friend of sterilisation, and would place it on the same footing as abortion-procurement. He advocates the detention, for life if necessary, of feeble-minded children, and some provision to make it sure that no one should be allowed to marry without having full knowledge of existing taint in the other party. He would have it possible to claim a statutory declaration on the point from either party, and in this we entirely concur. There should be no concealment as to what may exist in a family into which anyone proposes to enter. At the same time we feel that, in the poorest classes at all events, the raising of more difficulties than exist at present might lead to their dispensing with the services of the parson, who has enough difficulty in persuading many to regularise their relationship by the marriage ceremony. But there can be no doubt that in the higher classes such a declaration would do good, if it were also provided that a false declaration should be unimpeachable ground for the dissolution of the marriage.

A new acute hospital for men has been set in hand and completed. The similar institutions at Long Grove and Bexley have been studied, and further improvements have been adopted. The cost works out at £195, including the equipment, but, we suppose, without any allowance for the value of the land taken up out of the large estate. We can compare that cost with the £95 per bed, which was the cost of a villa at the Manor Asylum, mentioned in our review of last year. The two places were built presumably under exactly similar conditions,



both being below the average price on account of the large amount of home labour employed. The difference may be taken to express the extra cost of providing for acute over that of providing for non-acute patients, and should be borne in mind by those who criticise asylum cost.

At *Long Grove* Dr. Ogilvy, in taking up office, makes a warm and suitable reference to the work of his predecessor, and to the manner in which his own advent was received by his colleagues and the staff generally. We note that of twenty-six deaths from tuberculosis, twelve acquired the disease subsequently to admission. Though this is not a large number among so many patients it serves to show that tuberculosis is still a scourge, in spite of the modernity of the buildings and their arrangements, the open-air treatment and careful measures of a prophylactic nature undertaken, especially in regard to the possibility of bovine infection. It helps to counteract the idea, which acquired much prominence not long ago, that phthisis was mostly caused by old infection dwelling on the walls and floors.

At *The Colony*, Dr. Collins makes some valuable remarks on the effect of various therapeutic measures on the occurrence of epileptic fits. Sodium bromide was substituted in the diet for common salt, but with disappointing results. Total absence of meat gave no encouraging results, and no particular kind of meat appeared to be less hurtful than another, though when the general meat diet of all the asylums was reduced in 1909 a slight reduction in the total number of fits was noticed. He thinks that in many cases bromide appears to have a deleterious effect on mind and body, which is not counterbalanced by the reduction in the number of the fits. But, as he says, unfortunately most of his cases are well established before admission. In several cases the Wassermann test was applied to the cerebro-spinal fluid by Dr. Mott, the reaction being negative in the epileptic cases submitted, and positive only in the general paralytics. A system of appointing the assistant medical officers for six months only has been inaugurated.

*The report of Dr. Mott* chronicles an immense amount of delicate and arduous work accomplished and in hand. Most of the results appear in the archives or in various medical journals, the space allotted to the report being too confined, we suppose, for its more particular description therein. There is an important summary of the efficacy of the Wassermann test. The original technique devised by that great authority has been followed to the exclusion of all suggested modifications, the great majority of which have been found to be quite unreliable. Experience has led Dr. Mott to state that the reaction in the cerebro-spinal fluid he has found to be of great practical value in the diagnosis of general paralysis. In this connection it is most gratifying to read that he has found that a practically equal value is to be attached to it as a means of diagnosis when applied to the blood-serum. One cannot but hail a statement like that, made on such incontrovertible authority, as the announcement of a great boon, not only to the patients, who may escape the inconvenience, if no worse, of lumbar puncture, and to the medical inquirer, but to general science, by rendering possible the adoption of a process of simpler technique but giving as accurate results.

The general incidence of tuberculosis in the asylums hardly varies from year to year, the percentage of reported cases ranging around 2. Similar uniformity is found in the revelation of active tuberculous lesions on autopsy. The percentage for last year of 15.5 seems to be about the mean of the last nine years. The *post-mortem* findings of error, either by under-discovery or over-discovery, are not considerable in view of instances of non-discovery, occurring mostly among the males who include the general paralytic and senile cases, in whom it was either a terminal recrudescence or re-infection. In regard to dysentery Dr. Mott states that the cases show a diminution. For the past five years the condition of the asylums has improved, and had it not been that the last opened asylum contributed one-third of the total of cases the incidence would have been low. Ward epidemics of the disease do not appear now, though there is still a tendency for the cases to group themselves round certain wards, the relapse of a recurrent case being followed by one or more fresh cases in the same ward.

So, too, with diarrhoea, which is carefully registered. An independent table shows the total number of cases in all the asylums. It is noteworthy that the total for last year with ten asylums contributing is but a trifle more than one-third of the total cases in 1901-2 in seven of them only, Horton, Long Grove, and The Colony being yet on the knees of the gods. These returns of dysentery and diarrhoea are convincing proofs of what can be done by scientific, resolute, and unending fight with disease, and they confer the greatest credit on those who are responsible for putting up that fight.

*The Asylums Engineer's report*:—Mr. Clifford Smith shows by his lessened steam-coal consumption the benefit of up-to-date apparatus for producing steam and hot water. At Cane Hill, opened thirty years ago, 1.04 ton was used per patient. The analogous ratio for Long Grove, opened 1909, was 0.91. At Banstead he found that a hot-water main of 6 in. diameter had been reduced by deposit of lime carbonate to one-sixteenth of its proper area. The opportunity afforded by the need to lift the pumps for repair at Bexley was taken to give all the under-water work a coating of non-oxidisable material, former experience having demonstrated the benefit of that process. Referring again to the benefits of a new hot-water system at Cane Hill, he says that the substitution of water for steam as a carrier of heat gives the result that the loss when water is thus used is but 33 *per cent.* of that when steam is the agent. The change involved the removal of thirty-six local tanks and a considerable amount of gear. The substitution of gas-heated stoves for coal-fired kitcheners in ward sculleries continues to prove a remunerative procedure. The actual cost of the firing is the same, but the gain is in convenience—the heat can be obtained instantly, and coal and ashes have not to be handled, with the consequent lessening of traffic, dust and dirt in the wards. At the central station the cost of electricity was a shade over 1½d. per unit—rather less than the cost of the previous year. Mr. Clifford Smith has 585 men under his orders.

The following extract refers to the Maudsley Hospital.

Upon the acquisition of the site at Denmark Hill, sketches of buildings suitable for it were prepared and submitted to the sub-committee, who selected one and

decided as to the numbers and grades of the staff to be accommodated. The designs of the administrative and hospital buildings were then put in hand and in due course approved. The scheme adopted, which has Dr. Maudsley's approval, consists of an administrative building, two hospital blocks, a building in which the boiler room, main kitchen and other domestic sections are arranged, and a mortuary and disinfector house.

The administrative building will face the main road, and in it are arranged, on the lower ground floor, the stores department and laundry section; on the ground floor, the offices for the medical and clerical staff and quarters for the medical officers, admission rooms and the department for out-patients; and on the first floor, the quarters for the matron, night nurses and other female staff and the pathological laboratory.

The hospital section consists of a three-floored building for each sex. On each floor there will be a complete self-contained ward, having dormitory, day and single-room accommodation for eighteen patients, and rooms for two nurses, so that the beds in each building will number fifty-four, arranged in three wards—a total of 108 in all. In the ground-floor wards there are to be special rooms fitted with continuous baths, and verandahs for open-air treatment are arranged. The hospitals will be connected with each other by bridges for convenience of supervision.

It is proposed to acquire a house adjacent to the site for the accommodation of the medical superintendent. The day sisters and nurses, for whom accommodation is not arranged in the buildings, will also have a residence adjacent to the hospital, but not actually within it.

The whole of the plans are now with the Commissioners in Lunacy, to whom they have been submitted for consideration.

From the list of pensions, which is in very full detail, we take the following:

A. 12 nurses and 19 attendants (in each sex, from the chief downwards) have taken the benefit of the *Superannuation* Act under the following circumstances:

	12 Nurses.	19 Attendants.	Required by Act apart from incapacitation.
Age average	50	55	55
Service average	23	27	20

B. The last 12 nurses and the last 19 attendants (graded as above), who took the benefit of the *Lunacy* Act, did so under the following circumstances:

	12 Nurses.	19 Attendants.	Required by Act apart from incapacitation.
Age average	49	52	50
Service average	23	28	15

Of those who retired before qualification by both age and service:

	12 Nurses under		19 Attendants under	
	A.	B.	A.	B.
Doubly disqualified	3	1	2	—
Disqualified by age only	3	5	2	2

These calculations are not exact, since, on the one hand, the days over and above completed years have been omitted, and on the other hand the averages are not continued into fractions. They are probably near enough to the actual truth. Further, they do not cover sufficient time, especially in the case of the new Act, to support assured consistency of events, but, as far as they go, they point to the great

strain thrown on prolonged service among the nurses, and they serve to confirm the claims made by the Association for the reduction at least in the recently increased age qualification in their case.

Among the general statistical information we note that the Strand still occupies the first place among the contributing unions in the ratios of those in asylums to the population, with 13 per mille patients at the end of the year, the next in prolificacy being Westminster and St. Giles-in-the-Fields, each with 10.6. The ratio for all London is 6.07. This high proportion has attracted attention before, but no particular reason has been offered for it. Stated, as it is, on the residence at the end of the year, it admits the possibility of the patients from these areas being more resistive to decay and death than their fellows, but this is hardly probable, and it may be that the ratio of admissions would show a still more striking departure from average. On the whole the parishes below the mean line, though they include such places as Bethnal Green and Hackney, are mostly neighbourhoods where quiet, possibly dull respectability is most found, though Kensington is only just below the line. But why should these first-mentioned unions leave behind them Poplar, Mile-End, Bermondsey, Shoreditch, and White-chapel? These latter quarters are generally coupled with grinding poverty and struggle for life. Since, as we believe, in the three highest unions, which form the chief part of hotel-land in the metropolis, the ephemeral guests would form a considerable part of the enumerated population at census time, the gathering ground would be further restricted. Hard work and even hard living are not necessary factors in the production of insanity, and we can only believe that there is some peculiar factor at work in them. A suggestible factor is the pernicious combination of mental stress, restless excitability with irregular life and alcohol.

Another return which arrests attention is that of the stated relapses during 1911 of "recovered" cases. In the gross they amount to 29 *per cent.* of patients so discharged from 1895-1911 inclusive, and, further, the readmissions during the year of those so discharged within twelve months amounted to 12.06 *per cent.* Such striking figures invite criticism and comment, especially as we are becoming more and more nervous about the future of the race. But it is easier to sneer than to suggest any method of getting over the facts. The question first raised is as to the exact value to be placed on the term "recovery." There is the advanced academic view, originally made in Germany, but becoming more prevalent here, that the great majority of ordinary cases never do get well, that the emergence from an attack is but a remission in some weird cycle of varying mental health. The adaptation of such an arm-chair theory to actual practice is too dreadful to contemplate. Even admitting its truth, it wars against common-sense and common language. Because there is a chance of recurrence, it might be said that a man never recovered from acute rheumatism, gout or similar afflictions; in fact, the only way of establishing permanent recovery in a particular case would be death from accident or disease before a further attack comes. We are apt to look upon insanity as a disease that may probably return on account of its own aggressiveness; but it is easy to forget that the great majority of pauper patients, at least, go back from

the asylum to the same stresses, the same environments that originated the initial attack. It is only to be expected that these malignant factors should have increased effect on a brain that has once given way. Until the stresses and the environment can be bettered, there is every prospect of relapse. We knew of a case where the patient was readmitted after fifty years of useful and active life spent after an attack in younger days. Should his first attack be counted as recovery? If so, it is only a question of degree between his case and that of a man who becomes ill again after, say, two years. In the absence of a definition possessed of engine-turned accuracy, the use of the term "recovery" must be assigned by each man on his own responsibility and sense of what is practically right to the patient. The difficulty cannot be got over by calling him relieved only. Presuming that he has no further business in the asylum, he would go out and do the same mischief and suffer the same harm, whether he is called cured or relieved. An exception to this may possibly arise where questions of official or monetary responsibility are involved. Then the interests of others must be considered.

*Suffolk District Asylum.*—Among the many factors of uncertainty in the attempt to translate the facts of asylum work into figures, there is none more disturbing than the actual value to be placed on the term "recovery." Dr. Whitwell has some well-considered remarks on this term.

*Recovery.*—Definition has been said to be the putting into language entirely unintelligible of something that was previously quite clear. It would therefore perhaps be unwise to attempt anything in the nature of a definition of the word "recovery" as used in medicine and surgery; it would at first sight appear to be sufficient to say that it was a return to the normal, were it not on the one hand extremely improbable if that ever occurs, and on the other, that it rarely in practice means anything of the kind. It seems that a "return to practical usefulness of the individual" would meet most cases, even those which include loss of, or loss of function of, considerable portions of the organism.

In ordinary bodily cases the individual can return to practical world usefulness, even after considerable damage has been done to, or removal taken place of, various parts of the organism—but in the case of both mental and nervous disease, so great is the inter-dependence of parts, and so highly specialised the functions of the areas involved, that the return to practical world-usefulness which is called "recovery" is of less frequent occurrence, and it would appear to be a fact that, taking the mass of nervous diseases, and the mass of mental disease, real return to practical usefulness is greater in the latter than in the former.

Unfortunately it is the case in connection with mental diseases that the use of the word "recovery," though still holding the meaning referred to above, is much complicated in that there is a legal view of recovery which is based on quite other considerations, just as the legal view of what constitutes mental diseases is removed by some distance from what mental disease really is.

There is thus a legal "recovery" which is quite apart from and different from that defined above, and it perhaps might be defined roughly as the "apparent return to practical usefulness of the individual."

We do not for a moment say that this discrepancy is entirely avoidable inasmuch as some arbitrary division must be made where no clear natural division exists, and we do hold that the legal side of mental disease is extremely important, and anything weakening or impairing its influence would certainly be detrimental to the welfare of mental patients; it is, however, found in practical life that the complication is an awkward one at times, and not productive of good results. Thus, legally, a patient is by implication said to be recovered if at a given time he cannot be

certified, while it is within the knowledge of everyone familiar with mental disease that there are many patients suffering from certain forms of mental disease who cannot be certified within a specified time or at a given moment. Similarly, also, a patient who has escaped from an asylum, and can mix with his fellows outside for fourteen days, without detection, is adjudged legally to be sane, which may or may not be the case—usually not, since very few patients who are really convalescent from mental disease attempt to escape.

In defining the legal form of recovery as the "*apparent* return to practical usefulness of the individual," it is intended to imply that the law accepts the position in certain cases that if to the unversed in mental disease the individual *appears* to be well mentally, he is in fact well mentally, and it is to be observed that those unversed in the peculiarities and complexities of mental disease are frequently prepared to readily give an opinion thus on superficial points, although they would equally readily admit that it is not always quite easy from observation to diagnose the apple with the worm in it, or the nut devoid of kernel. Insanity suffers, perhaps, more than any other single subject from the certain necessary mystery which is bound to surround it, with the result that everyone appears to form his own opinion on the matter in terms of that which is within himself. The great diversity of opinion as to what constitutes being "well mentally" after an attack of mental disease is shown by the fact that a patient is deemed to be well mentally—(a) by the law, when he cannot be certified, when to the uninitiated he appears to be well, when he can mix with his fellows for fourteen days without detection; (b) by medicine, when from a knowledge of the types and varieties of mental disease the patient has ceased to exhibit mental symptoms and abnormal tendencies after prolonged observation, trial and analytical examination; (c) by the friends, when he can work; (d) by a large section of the public, when he does not put straw in his hair; (e) by himself, frequently when at his worst mentally; (f) by the yellow journalist, whenever the patient says so, and there is good copy in it.

In his own practice he rigidly restricts the use of the term "recovery," excluding from it all discharges of those types of mental disease which are known to have an early neuro-dissolution basis. Accordingly his recovery-rate is not on the average line. By a diagram he shows that while among several unnamed asylums the discharge-rate is apparently about the same, the number of recoveries in a few, including his own, is much lower. The patients go out of the asylum, but "by a different door." Dr. Whitwell makes one other point about recovery. He says that if we take a series of any asylums and compare the rates of alleged recovery the ordinary reader will note wide differences among them which he might reasonably attribute, in the case of the greater ratio, to some better method of treatment, some subtle drug or some potent apparatus. Unfortunately, as he points out, the best equipped asylums show not the best results, and if we take the returns of the old days and of these, where so much scientific improvement has taken place, the comparison shows no improvement. We might, perhaps, suggest that scientific improvement may have produced something, for if the rates of old days and those of the present are equal there must be some advance, not in number, but in the quality of recovery. Science forbids the easy way of recording recovery. And, again, cases now are less susceptible of improvement than they were in the days when an asylum was an asylum, and in no sense a glorified workhouse ward for the insane.

*Wilts County.*—Eight unions in this county have adopted a scheme of combination to provide institutional care of the feeble-minded. It is gratifying to find an instance of the initiative of this important movement coming from within. It is looked forward to in the county as one means

of relieving the asylum of those inmates whose retention causes pressure to the point of necessitating the provision of additions to the asylum. Since this report was written the Bill has come forward, and it has been amended so as to exclude all but the congenital and early-age cases, so that much of the relief will not be found when the Bill passes. In this case perhaps the original scheme will be followed, and we hope that it will. If there is need for different accommodation for some of the old cases other than the workhouse or the asylum, a trial in a county like Wilts, made *proprio motu* and not under compulsion, will help much to solve doubts and to guide action in other quarters. If undertaken voluntarily, it will undoubtedly happen that actual local needs will be followed up, and that the provision will not be made tentatively on lines laid down in office or in Parliament. One would think, too, that the steps already taken by the local authorities will be useful when the Act causes inquiry to be made in respect of the congenital cases. Such a grouping must help the responsible authority, even if, as at present ordained, the county itself is to have charge of the arrangements.

The reports of visiting guardians have always been a notable feature in this report, and we are most glad to see that their tone is so favourable towards the officers of the asylum, who have the burden of looking after so much misery. Some of the reports remark strongly on the personal qualifications of Dr. Bowes and the bearing of his patients to him. We think that such a feeling must be a greater source of pride than the possession of the highest scientific attainments. It certainly is evidence of the fulfilment of the first duty, that of kind care of patients, whatever may be the value of the information to be gathered from their scientific observation; and these reports are valuable, further, in that they reveal a true appreciation of what a well-managed asylum really is. In this connection we take leave to make an earnest protest against the common, we may say, vulgar, use made of the term "incarceration." At first it was meant as a term of reproach and prejudice. It was obviously ill meant, as it imparted first the idea of gaol and next of walls; but now it has been adopted as the most useful expression, because it is crisp and comprehensive, by persons even who ought to know better than to keep alive an utterly false suggestion. Of late it has been much in use, in letters to the press, in debates and so on, in connection with the Mental Deficiency Bill. It has been much used to help in drawing a fancied distinction between the asylum and other less costly methods of care-taking. "Confinement" would be the obvious alternative, but it is not biting enough for some purposes.

(To be continued.)

## Part IV.—Notes and News.

### THE MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

THE QUARTERLY GENERAL MEETING was held at 11, Chandos Street, London, on Tuesday, November 26th, 1912, Dr. J. G. Soutar, President, in the Chair.

Present: Drs. T. S. Adair, H. Baird, J. L. Baskin, F. Beach, J. S. Bolton, C. H. Bond, D. Bower, J. Brander, J. F. Briscoe, J. Carswell, R. B. Campbell, J. Chambers, R. H. Cole, M. A. Collins, H. Corner, S. Coupland, M. Craig, A. W. Daniel, W. R. Dawson, H. B. Donkin, A. C. Dove, A. R. Douglas, R. Langdon Down, Thos. Drapes, J. H. Earls, F. A. Elkins, G. W. Gilmour, J. R. Gilmour, T. D. Greenlees, B. Hart, H. E. Haynes, J. W. Higginson, D. Hunter, T. B. Hyslop, R. Jones, G. H. Johnston, J. Keay, N. Lavers, H. W. Lewis, W. H. C. Macartney, H. C. MacBryan, P. H. Macdonald, H. J. Mackenzie, S. R. Macphail, E. Macnamara, D. McRae, W. F. Menzies, C. Mercier, J. Middlemass, A. Miller, R. Miller, R. C. Mornington, W. F. Nelis, H. H. Newington, H. J. Norman, J. G. Porter Phillips, B. Pierce, Wm. Rawes, R. G. Rows, J. N. Sargeant, B. H. Shaw, G. E. Shuttleworth, R. P. Smith, J. B. Spence, J. Stewart, R. C. Stewart, R. G. Stilwell, W. H. B. Stoddart, C. T. Street, J. D. Thomas, T. S. Tuke, F. Watson.

Visitor: Dr. T. H. C. Stevenson.

Present at the July, 1912, Council meeting: Dr. W. R. Dawson (President) in the Chair; Drs. Blair, Bolton, Bower, Campbell, Chambers, Collins, Drapes, Hunter, Keay, Macdonald, Middlemass, Miller, Nelis, Newington, Phillips, Shuttleworth, Soutar and Spence.

Present at the November, 1912, Council meeting: Dr. J. Greig Soutar (President) in the Chair; Drs. Adair, Bolton, Bower, Brander, Campbell, Chambers, Collins, Dawson, Drapes, Hart, Hunter, Keay, Lewis, McKenzie, McRae, Middlemass, Miller, Nelis, Newington, Phillips, Rowe, Shuttleworth.

The PRESIDENT pointed out that the minutes of the last meeting had already appeared in the Journal, and asked whether it was the wish of members to take them as read. (Agreed.) He said the meeting would now consider any business which arose from the meeting of the Council which had just been held.

### THE MENTAL DEFICIENCY BILL.

Dr. HAYES NEWINGTON desired, with the approval of the Council, to offer a few remarks on the present condition of the legislation with regard to the Bill known as the "Mental Deficiency Bill." This had, to a certain extent, reached a very satisfactory position. Doubtless the newspapers had led members to believe that there was something intensely political and irritating about the failure of the Government to carry this Bill through during the present Session; but his own view was that the Government had nothing whatever to do with that, and it was unfair to put on the shoulders of the Government any blame for the present condition of affairs. The Home Secretary said he would do his very best to carry this Bill through—he forgot the exact words used, but they were very emphatic. Then came the "snap" division, after which he naturally said there must be some modification of the pledge which was given, not on account of the work which would have to be done by the Standing Committee, but because the time would be so short that the passage of the Bill in the report stage through the House was imperilled. And therefore it was thought better to withdraw the pledge to pass the Bill and substitute therefor a pledge to pass it next year, after continuing the sittings of the Standing Committee for a time in order to improve the principal part of the Bill, so as to make it a good basis for the Bill of next year. And that had been religiously adhered to. He felt bound to say, from a sense of justice, that he believed the Government were not to blame on this score. The real offenders were certain private members who wished to wreck the Bill. There is no question of politics at all in this matter on either side of the House; it is a question of obstruction on the part of those who do not like the Bill. The

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agreement, then, was that the Committee should still continue to sit, improving those particular clauses which were selected after consultation with the Association's Committee. The particular improvements up to now were, first of all, the point on which the Association expressed its opinion in February here, and again at Gloucester, that the Commissioners should be the authority under the Bill. It was not very difficult, when one could appeal to common-sense, to show ample reason why the Commissioners should be the authority. Coming to the debate, Mr. Leslie Scott was in favour of the Association's views, and he was successful, and at the very first meeting of the Standing Committee the Home Secretary withdrew his own clause, which constituted a kind of hybrid or mongrel Board of Control, in favour of just the Board of Control which the Association, by expressed resolution, decided to procure if it could. There were one or two little points in connection with that Board which still remained open, and in regard to which it was the opinion of the Committee that improvement could still be brought about, and those points would accordingly receive their best attention. But what he had indicated marked a very great step, and it had made the Bill in any shape safe, because members knew that however it might come out eventually, it would be administered with sound common-sense, and by men who were trained and experienced. It was idle to think that a body of amateurs, so to speak, could efficiently take up this enormous question. The next step which was taken after dealing with the composition of the Board was that the Committee passed, by general consent, to clause 17, which stated and defined those who were going to be subject to the Bill. On that matter the amendments which had been passed were extremely satisfactory. Clause 17, as members were probably aware, stood in two divisions—No. 1 and No. 2. The latter was really the chief one, because it delimited the people who might be subject to the Bill. No. 1 specified which of those defective people should be brought under the Bill, and that also had many important points. The latter were those who were found neglected, abandoned, or cruelly treated, and so on, very much as before. But the chief improvement there was that the original section (e) of the Bill, which read, "in whose cases it was desirable that, in the interests of the community, they should be deprived of the opportunity of procreating children," had now been altered into the following—"Those who are in receipt of poor relief at the time of giving birth to an illegitimate child or when pregnant of such child; or—." That change had the effect of considerably reducing the opposition on the part of the obstructors. With regard to the second part of the clause, there were very important changes, and he would read out the definitions in the form in which they finally left the Committee: "The following classes of persons shall be deemed to be defectives within the meaning of this Act: (a) Idiots; that is to say, persons so deeply defective in mind from birth or from an early age as to be unable to guard themselves against common physical dangers. (b) Imbeciles; that is to say, persons in whose case there exists from birth or from an early age mental defectiveness not amounting to idiocy, yet so pronounced that they are incapable of managing themselves or their affairs, or, in the case of children, of being taught to do so. (c) Feeble-minded persons; that is to say, persons in whose case there exists from birth or from an early age mental defectiveness not amounting to imbecility, yet so pronounced that they require care, supervision, and control for their own protection or for the protection of others, or, in the case of children, are incapable of receiving proper benefit from the instruction in ordinary schools. (d) Moral imbeciles; that is to say, persons who from an early age display some permanent mental defect coupled with strong vicious or criminal propensities on which punishment has little or no deterrent effect." It would be noticed that in all those four divisions there was mention of the element of defectiveness existing from birth or from an early period. That meant that one half of the old Bill was preserved; but he was glad to say that the last clause of that section, which in the original Bill stood—"Mentally infirm persons, that is to say, persons who through mental infirmity arising from age or decay of their faculties, are incapable of managing their affairs or those of others"—had been cut out. This latter had imported into the Bill cases of acquired defect, and mixed them up with congenital defectives. All present would realise that it was impossible to make a Bill thoroughly satisfactory which embraced those two essentially different classes, and now that the Bill was restricted to the "from

birth or early age " cases he thought it could be claimed as generally satisfactory, in the opinions of all. If these senile and other cases of acquired defect had been retained in the Bill, it would have upset the arrangements in all the asylums, whether county asylums, registered hospitals, or private asylums. Those cases were already very well looked after under the existing law. That was the resolution passed by the Select Committee on the Bill, and it had been passed chiefly by the exertions of those who were guided by the views of the Association. That he regarded as extremely satisfactory, and the whole Bill, as far as that Association was concerned, was now in a far better position than when it was originally drawn. The Association was greatly indebted to Dr. Hyslop for the work he had done in that regard. He asked Dr. Hyslop to make this statement concerning the progress of matters, but he preferred that he, the speaker, should do so himself; and so he would take the opportunity of saying that the Association was enormously indebted to Dr. Hyslop, not only for the work he had done, but also for the way in which he had done it. It had entailed an immense amount of work—writing, telephoning, arranging; and all these things had to be done promptly. He had also been good enough to interest a strong body on their behalf—the Unionist Reform Association. When they heard the full name of that body they were afraid it meant political work; but he mentioned that in order to deprecate any idea of political work, and there had been nothing of the kind. That body had been in close touch with Mr. Secretary McKenna, who had been glad to look to them for the aid they were in a position to give, and Mr. McKenna thanked them heartily, before the Committee, for what they had done. He, Dr. Newington, thought the Association would suffer no lowering by reason of the great interest which it had shown in this Bill; but, on the other hand, would be looked upon as a body to be referred to in such matters; and he hoped that would continue.

The PRESIDENT said the Council thought that the General Meeting would like to hear something in regard to what had been done in the matter of the Mental Deficiency Bill; and it was clear from the reception accorded to Dr. Newington's statement that they were right in that view. It was evident from that *resumé* that the work done by the Association's sub-committee had enormously strengthened the Bill, and had resulted in great advantage to the Association. One omission in Dr. Newington's speech was the great part which that gentleman himself played in the result so far. Dr. Hyslop and Dr. Newington had done all the great and important work on that Committee, and to them was due the unexpectedly satisfactory result in a direction whence opposition might have been anticipated. He had himself only been recently elected, but he had seen sufficient to know that the Committee had been not only interested in the work, but had greatly helped it; and the meeting would be glad to know that the Committee had been re-appointed so that it could continue to look after the interests of the profession in this regard.

#### ELECTION OF CANDIDATES AS MEMBERS.

The following gentlemen were separately balloted for, and duly elected:

James Morgan Barkley, M.B., Ch.B. Edin., Robert Hughes, M.B. Lond., M.R.C.S., L.R.C.P., M.P.C., Frank Oswald Spensley, M.R.C.S., L.R.C.P., and William Douglas Wilkins, M.B., Ch.B. Vict., M.R.C.S., L.R.C.P.

#### GASKELL PRIZE.

The PRESIDENT announced that the winner of the Gaskell Prize was Dr. William Boyd, of Winwick Asylum. He stated that the question of the eligibility of the successful candidate had been submitted to the Association's solicitor.

#### BRONZE MEDAL.

He announced that no award had been made in respect of the Bronze Medal. A curious condition of affairs had arisen. It was suspected from the paper that it was the work of more than one author. That was ascertained to be so, and it rendered the paper ineligible for competition.

Dr. SIDNEY COUPLAND read a paper entitled "Remarks on Death Certification and Registration" (see page 27).

The paper was discussed by the PRESIDENT, Drs. MERCIER, STEVENSON, BRISCOE, PIERCE, ROBERT JONES, BOND, PERCY SMITH, COLLINS, MENZIES, and DAWSON.

Dr. COUPLAND replied.

The PRESIDENT announced that, owing to the lateness of the hour, Dr. Rows had agreed to postpone the paper contributed by Dr. Orr and himself.

The members dined together in the evening at the Café Monico.

#### SOUTH-EASTERN DIVISION.

THE AUTUMN MEETING of the South-Eastern Division was held, by the courtesy of Dr. John Turner, at the Essex County Asylum, Brentwood, on October 1st, 1912.

Among those present were—Drs. J. G. Soutar (President), H. E. Haynes, David Bower, John Turner, T. Duncan Greenlees, J. Watson, G. Clarke, E. M. Johnstone, A. C. Dove, W. H. B. Stoddart, J. K. Clarke, Norman Oliver, James Stewart, G. N. O. Slater, Hubert J. Norman, T. O'C. Donelan and David Hunter (Hon. Secretary).

The visitors included the Rev. H. Stephens, Drs. E. Percy Court and Philip Johnson.

Apologies were received from several members.

The asylum and grounds were visited, and at 1.30 the members were entertained to luncheon. At the end of lunch the President proposed a vote of thanks to Dr. Turner and the Essex County Asylum Committee for their kindness in so hospitably receiving the Division.

The meeting of the Divisional Committee was held at 2.15 p.m.

The General Meeting was held at 2.45, the President in the Chair.

The minutes of the last meeting, having been printed in the Journal, were taken as read and confirmed.

The invitation of Dr. H. A. Kidd to hold the Spring Meeting of the Division at the West Sussex Mental Hospital, Chichester, on April 29th, 1913, was unanimously accepted with much pleasure.

#### COMMUNICATIONS.

Dr. JOHN TURNER opened a discussion on "The Points which Determine the Fitness of a Patient for Discharge—(1) as Recovered, (2) to the Care of Friends."

Dr. Turner said that his object in opening this discussion was more to find out the practice of others in the matter than to impart any useful information of his own. He found it rather difficult to summarise precisely the practice at Brentwood. If the case were one of acute insanity they endeavoured to obtain a convalescent period of a month or more after the subsidence of the mental symptoms, but it was often difficult to obtain this concession, owing to the clamour of the friends for the discharge of the patient, and he did not think that the law gave them any power to enforce this period of convalescence. In the case of a person convalescent from, say, typhoid, they could point out the desirability of rest, but that was all. As a result he was persuaded that many cases go out too early, relapse, and have to return. If the attack were one mainly due to anomaly of brain (that is, in which the inherent factor bulked largely and the accidental but slightly), cases in which delusions and hallucinations were leading features, one had to take into consideration the nature of these delusions, etc., and whether, during the attack, they dominated the actions of the patient. The history had to be studied, and such factors as alcoholism or a tendency to suicide to be considered. He held that in such cases there was no convalescent period, but an interval after the subsidence or apparent subsidence of the symptoms was quite as necessary as in the first class of case. If not the first attack some clue could often be obtained as to the permanence of the so-called recovery from the time they had previously remained out and the capability for occupation they had shown. Strictly speaking he supposed such cases did not recover. But the word "recovery" was used in a widely vary-

ing sense by different asylum authorities. That this was so was very strikingly shown by a table published by Dr. Whitwell in his last report. There it was shown that whilst the recovery-rate of different asylums (twelve unselected ones were instanced) varied from 16 to 60 *per cent.* on the admissions, there was very little difference in the total output between the different asylums. So that what one asylum termed a recovery, another more correctly, perhaps, termed relieved.

Turning to cases discharged to the care of friends, Dr. Turner said that in his experience there was no more trying part of the duty of a medical officer than that of trying to dissuade friends from taking out undesirable cases. The friends seemed to be imbued with the idea that the asylum authorities had some secret evil design on the patients, and somehow derived some benefit from detaining them. The more insane and troublesome the patient was, and the more one could heartily desire to see the back of him or her, the greater were the friend's suspicions of one's integrity.

In his opinion the medical officer's functions, except in cases actively dangerous, were purely advisory, and he thought that some officers, perhaps, took upon themselves duties and responsibilities to which they had no legal right. It was their duty to point out clearly to the relatives the nature of the insanity and the liability of the symptoms to issue in dangerous actions, but having done so, if the applicant could prove that he was in a position to house the patient properly, and was willing to take the responsibility on his own shoulders, they had not the power to prevent him.

If he was right on this point, he would still be very sorry to have any additional legal powers enforced on him, but he would like to see very severe penalties imposed on any person who took a case out in opposition to the medical officer's opinion, and who allowed such a case to be a danger or an annoyance to others.

The Brentwood Committee had recently introduced a rule that any person who wished to take out a patient had first of all to send a written application to that effect a clear week before committee day. The superintendent then communicated with the clerk of the union, who was able to ascertain whether the person applying was responsible, and the house and surroundings suitable. A similar rule was, he believed, in force in other places. At Brentwood they found it answer very well and saved many unpleasant interviews with irate or abusive friends, who formerly sprung upon one, as it were, suddenly on committee day the desire of taking out their relative.

From the ideal point of view, and if they knew anything about heredity by which they could ensure the production of a desirable race, most of the cases taken out by friends should not be allowed to go, and hence the asylum accommodation would have to be vastly increased.

Dr. Turner concluded by quoting several illustrative cases.

In the discussion that followed, the PRESIDENT, after complimenting Dr. Turner on his choice of a subject for discussion, remarked that it was an extremely difficult problem to say what was or what was not a recovery, and one which with increasing experience he found more difficulty than ever in solving. He was of opinion that comparatively few patients really recovered.

He gave several instances of patients who were discharged still suffering from hallucinations or delusions, who remained at large for years.

He had been surprised to find how many patients discharged recovered were not capable of performing normal social duties or had a lack of self-control or confidence.

Dr. G. CLARKE said that he, too, would be sorry to see the law altered in such cases. He advocated the system of prolonged trial as being most useful.

Dr. STODDART said that among private patients he was in the habit of letting them go home for gradually increasing periods to the care of friends and noting whether they improved or deteriorated. He thought some cases improved at home which had ceased to do so at the asylum.

Dr. GREENLEES and Dr. JAMES STEWART also discussed the paper, and Dr. TURNER replied.

Dr. GEOFFREY CLARKE then read a paper entitled, "The Forms of Mental Disorder occurring in Connection with Child-bearing" (see p. 67).

The PRESIDENT complimented Dr. Clarke on the clear and analytical way he had considered the question. In the course of his remarks he stated that it

was his experience that cases associated with the puerperium and lactation were becoming rare.

Dr. BOWER confirmed what the President had remarked about the rarity of puerperal cases. In his opinion this was the result of the more reasonable and physiological way in which the puerperium was now conducted.

Dr. STODDART also agreed that puerperal cases were not so common as they had been. He thought this raised the question whether septic conditions were not really responsible for many of the cases.

Dr. JOHNSTONE also discussed the paper, and Dr. CLARKE replied.

A vote of thanks to the President for occupying the chair was unanimously carried.

After the meeting Mrs. Turner kindly entertained the members to tea.

In the evening the members dined together at the Café Monico.

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#### NORTHERN AND MIDLAND DIVISION.

THE AUTUMN MEETING of the Northern and Midland Division was held, at the kind invitation of Dr. T. L. Johnston, at the Lincoln Asylum, Bracebridge, on Thursday, October 24th, 1912.

Dr. T. L. Johnston presided.

The following members were present: Drs. M. A. Archdale, J. R. Gilmour, T. L. Johnston, A. P. Russell, E. S. Simpson, R. C. Stewart, T. S. Adair; and three visitors: Drs. J. M. Barkley, W. A. Carline, G. H. Johnston.

Apologies were received from the President (Dr. Soutar), Drs. Shuttleworth, Pierce, and others.

The minutes of the last meeting were read and confirmed.

Drs. Hitchcock, McDowall and Pierce were unanimously elected to form the Divisional Committee for the next twelve months.

An interesting paper was read by Dr. E. S. SIMPSON on "A Case of Methæmoglobinuria followed by Multiple Neuritis" (see p. 81).

Dr. JOHNSTON, Dr. GILMOUR and others took part in the discussion afterwards, and narrated various experiences they had had in the use of sulphonal.

A hearty vote of thanks was accorded to Dr. Johnston for his kind hospitality.

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#### SOUTH-WESTERN DIVISION.

THE AUTUMN MEETING was held by the courtesy of Dr. Monnington at Laverstock House, Salisbury, on Thursday, October 24th, 1912. The President of the Association (Dr. Soutar) was in the chair, and the following members were present: Drs. Baskin, Nelis, MacDonald, Monnington, Morton, and the Honorary Divisional Secretary (Dr. Blachford).

Letters of regret at being unable to attend were read from Drs. Aveline, Mumby, and J. M. Rutherford.

The minutes of the last meeting were read and signed.

Dr. Blachford was nominated for re-election as Divisional Secretary and Drs. Aveline and Nelis for re-election as Representative Members of Council.

The following were elected as members of the Association: Dr. W. E. Stevenson, M.B., B.S. Durh., Senior A.M.O., City and County Asylum, Hereford, proposed by Drs. C. S. Morrison, Blachford, and Bazalgette.

The Spring Meeting was fixed to take place at the County Asylum, Gloucester, on Friday, April 18th, 1913.

A report of the Sub-Committee appointed to deal with the question of a Central Pathological Laboratory was read, and after a short discussion the meeting was of opinion that in view of a conference shortly to be held in London, the matter should be allowed to rest until after that meeting, and as the President (Dr. Soutar) was attending the Conference he was asked to be good enough to watch the proceedings and voice the opinion of the South-Western Division should opportunity occur.

The meeting terminated with a vote of thanks to Dr. Monnington for his hospitality.

## SCOTTISH DIVISION.

A MEETING of the Scottish Division of the Medico-Psychological Association was held in the Royal College of Physicians, Queen Street, Edinburgh, on Friday, November 15th, 1912.

Present: Sir Thomas Clouston, Drs. Bruce, Carswell, Dods Brown, Hotchkis, Carlyle Johnstone, Kerr, Marr, Muirhead, Marshall, T. C. Mackenzie, Tuach Mackenzie, McRae, Macdonald, Oswald, G. M. Robertson, Ford Robertson, Ross, Shaw, Sturrock, Skene, Steele, Batty Tuke, Turnbull, Yellowlees, and R. B. Campbell, Divisional Secretary.

Dr. Turnbull occupied the chair.

The minutes of the last meeting were read and approved, and the Chairman was authorised to sign them.

The SECRETARY read a letter which he had received from Dr. Soutar, President of the Association, regretting his inability to be present; and apologies for absence were intimated from Drs. Alexander, Crichtlow, Easterbrook, Havelock, Keay, Urquhart, and Watson.

The SECRETARY read a letter which he had received from Dr. C. A. Mercier, criticising the views expressed by the Division in the resolutions regarding the terminology used in Lord Pentland's Lunacy (Scotland) Bill. On the motion of Dr. Oswald, seconded by Sir Thomas Clouston, it was unanimously agreed that Dr. Mercier's letter should lie on the table.

The Business Committee was appointed, consisting of Drs. Carlyle Johnstone, Keay, and Macdonald, along with the two representative members of Council—Drs. G. M. Robertson and McRae—and the Divisional Secretary, Dr. R. B. Campbell.

Drs. G. M. Robertson and G. Douglas McRae were nominated for the position of representative members of Council, and Dr. R. B. Campbell was nominated for the position of Divisional Secretary.

The following candidates, after ballot, were admitted to membership of the Association:

- (1) Henry Meredith Buchanan, M.B., Ch.B., Assistant Medical Officer, District Asylum, Inverness. Proposed by Drs. T. C. Mackenzie, Campbell, and Gostwyck.
- (2) William Murdoch Buchanan, M.B., Ch.B., Assistant Medical Officer, District Asylum, Inverness. Proposed by Drs. T. C. Mackenzie, Campbell, and Gostwyck.
- (3) Gilbert Malise Graham, M.B., Ch.B. Edin., Assistant Medical Officer, Stirling District Asylum, Larbert. Proposed by Drs. Campbell, Gostwyck, and Emslie.
- (4) Robert Marshall, M.B., Ch.B. Glas., Assistant Medical Officer, Gartloch Mental Hospital, Gartcosh. Proposed by Drs. Parker, Baugh, and Campbell.
- (5) Kenneth C. Middlemiss, M.B., Ch.B. Glas., Assistant Medical Officer, Woodilee Mental Hospital, Lenzie. Proposed by Dr. Carre, Dryden, and Chislett.
- (6) Harry James Rae, M.A., M.B., Ch.B. Aber., Assistant Medical Officer, Kingseat Mental Hospital, Newmachar, Aberdeen. Proposed by Drs. Alexander, Reid, and Kellas.
- (7) Ronald Stewart, M.B., Ch.B. Glas., Assistant Medical Officer, Gartloch Mental Hospital, Gartcosh. Proposed by Drs. Parker, Baugh, and Campbell.

Sir THOMAS CLOUSTON, in an exhaustive paper, introduced a discussion on the "Mental Deficiency Bill," which led to an interesting discussion in which several members took part.

Dr. WINIFRED MUIRHEAD read an interesting paper on the "Care of the Defective in America," giving an account of several institutions which she had recently visited in America (see page 53).

Dr. T. C. MACKENZIE drew attention to an unsuccessful action for damages which had been recently raised against him by an attendant whom he had dismissed for assaulting a patient.

Dr. CARLYLE JOHNSTONE pointed out that there was risk of similar actions arising through filling up the statement in the leaving certificate which had been issued by the General Board of Lunacy since the Asylums Officers' Superannuation Act had come into operation. He stated that he had been in correspondence with the General Board of Lunacy regarding the undesirability of filling in the particulars in the statement as to the cause for leaving. He recommended that

medical superintendents should answer queries Nos. 3 and 4 in the leaving certificate in all cases of dismissal by stating that reference may be made to the medical superintendent, and that a letter should be sent to the General Board of Lunacy giving the required particulars as to conduct and cause for leaving.

A vote of thanks to the Chairman for presiding concluded the business of the meeting.

The members afterwards dined in the North British Station Hotel.

#### IRISH DIVISION.

THE AUTUMN MEETING of the Irish Division was held on Thursday, November 7th, 1912, at the Royal College of Physicians, Dublin. Dr. W. R. Dawson was in the chair.

The other members present were: Dr. Maziere Courtenay, Dr. Greene, Dr. Drapes, Dr. Oakshott, Dr. O'Neill, Dr. O'Mara, Dr. Benson, Dr. Plummer, Dr. Leeper (Hon. Sec. of the Division).

Letters of apology for unavoidable absence were read from Dr. Nolan, of Downpatrick, and Dr. O'Doherty, of Omagh.

The minutes of the previous meeting were read and signed by the Chairman.

Letters were read which had been received from Dr. Nolan, of Downpatrick, regarding the present position of the Asylums' Officers Pensions and Employments Bill. These were addressed to Dr. Nolan, and were received from Lord Wolmer, Sir Chas. Nicholson, and Dr. Shuttleworth. All expressed regret that owing to the pressure of Parliamentary business this Bill, of so much importance to all asylum workers, had not received the attention it demanded from the Government.

Dr. John W. Garry, Assistant Medical Officer, Ennis District Asylum, having been proposed and seconded and balloted for, was declared elected unanimously a member of the Association.

The Hon. Secretary was directed to arrange the place for the Spring Meeting of the Division.

The meeting next proceeded to discuss the recommendations of the sub-committee on the Mental Deficiency Bill.

The CHAIRMAN made an explanatory statement as regards the possible extension of the Bill to Ireland, and the desirability of asking Mr. Birrell, the Chief Secretary for Ireland, to move in the House of Commons the extension of the Bill to this country.

A letter was read from Dr. Nolan, of Downpatrick, recommending that paragraph 1 (e), clause 17 should be omitted.

After a full discussion a resolution was proposed by Dr. DRAPES and seconded by Dr. Maziere Courtenay, and passed unanimously, "That the Irish Division of the Medico-Psychological Association expresses the hope that the Chief Secretary for Ireland will take into consideration the importance of extending the provisions of the Mental Deficiency Bill now before Parliament to Ireland, and will move a resolution to that effect. They are, however, strongly of opinion that paragraph 1 (e), clause 17, should be omitted." A copy of the resolution was ordered to be at once forwarded to the Chief Secretary for Ireland.

The CHAIRMAN, the HON. SECRETARY and other members present stated to the meeting their varied experiences as regards their efforts to interest members of Parliament in the extension of the Bill to Ireland, and suggestions were made as to the possibilities of interesting important personages in this matter.

Dr. Dwyer, Assistant Medical Officer, Richmond Asylum, being unavoidably prevented from attending the meeting, Dr. LEEPER, Hon. Secretary, was desired by the Chairman to read Dr. Dwyer's paper, "A Case of Morphino-mania with Suggested Visual Hallucinations" (see page 87).

The CHAIRMAN said Dr. Dwyer's paper was of importance, and suggested many valuable points for discussion.

Dr. DRAPES remarked upon the fact that they saw very few, if any, cases of morphino-mania in the country districts.

Dr. O'NEILL (Limerick) described a similar case to that of Dr. Dwyer, and this

case was also known to Dr. Maziere Courtenay and Dr. Dawson. Dr. O'Neill's case took 50 gr. of morphine a day, and had also taken unknown doses of cocaine, and had attempted suicide by precipitation, and yet had apparently completely recovered.

In answer to Dr. GREENE, it was stated that a patient could take cocaine to the amount of 100 gr. a day without a fatal effect.

The CHAIRMAN said he recollected the case referred to by Dr. O'Neill, and was much struck by the effect of cocaine, which seemed to deprive its *habitues* of all sense of cold. The patient thought it his duty to take these large doses of cocaine in order to study the effects of the drug. The largest dose of morphia he had ever known to be taken was 40 gr. a day.

Dr. O'MARA said he thought it was very difficult to estimate the amount of the drugs taken, as patients often exaggerated, and a good deal of the injection often got spilled from the syringe before use.

Dr. BENSON explained to the meeting the different effects upon the skin of cocaine and morphine injections, and pointed out that cocaine sets up more local irritation than morphine when subcutaneously injected, and has a somewhat similar action to adrenalin upon the blood-vessels of the skin.

It was proposed and seconded, and passed unanimously, that a vote of thanks be forwarded to the President and Fellows of the Royal College of Physicians for their kindness in allowing the meeting of the Division to be held in the College.

This terminated the proceedings.

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## REPORTS PRESENTED TO THE COMMITTEE ON THE STATUS OF BRITISH PSYCHIATRY AND OF MEDICAL OFFICERS.

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### THE ASYLUMS AND CLINICS IN FRANCE.

By HENRY DEVINE, M.D., M.R.C.P.

ASYLUMS in France are under direct Government control, the Minister of the Interior being the chief authority.

By the Act of 1838, it is the duty of the controlling authority (*assistance départementale*) of each department (*i.e.*, administration area of the country) to provide accommodation for the reception and treatment of the insane. Provision is made as follows:

(1) *Departmental asylums*.—There are special institutions built exclusively for the treatment of the insane. They correspond to the ordinary county asylum in this country. In a few of them private patients are treated in a separate section of the institution. The supervising board is nominated by the Prefect of the Department.

There are fifty-two of these asylums in France.

(2) *Hospital wards*.—In many cases a section of the State hospital is utilised as an asylum, instead of providing a separate institution. There are sixteen of these institutions in France, the Bicêtre and Salpêtrière in Paris being the best known. The former is utilised for men and the latter for women.

The conditions of admission are identical with those in the departmental asylums—*i.e.*, all the patients in the asylum section are under certificate.

(3) *Private asylums utilised by the State as public asylums*.—These are under private ownership or belong to religious orders, but fulfil the same functions as the other asylums. There are eighteen institutions of this character.

(4) *Family colonies*.—Two villages for the treatment of the insane exist in France, a male colony at Dun-Sur-Auron and a female at Ainey-le-Chatcau. They are modelled on the famous Ghéel colony in Belgium. The patients are boarded among the inhabitants of the village, where they live as one of the family. There is a central infirmary for the treatment of sick cases. If acute mental symptoms arise the patients are transferred to a departmental asylum. Only chronic and harmless cases are, of course, suitable for this method of treatment.

As in England there are also private asylums for better-class patients, under the general supervision of the public authority.



## CERTIFICATION OF THE INSANE.

While differing in details from the English methods of certification, for practical purposes the system is the same. Insane patients cannot be detained in institutions for the treatment of mental disorder without the usual certificates. Rigid formalities are also required in the discharge of patients.

## THE MEDICAL STAFF OF ASYLUMS.

The chief officer of asylums varies in different departments. In the asylums of the Seine and some others there is a director and also a physician-in-chief (one or more). The director is a layman, and his duties are purely administrative. He supervises the accounts, stores, kitchen staff, etc. The physician-in-chief is occupied with everything concerning the physical and mental *régime* of the patient, and is paramount in the wards. The subordinate medical staff and nurses are under his control.

The duties of these officials are parallel but distinct; they have authority quite independent of the other. In the large asylums of the Seine there are several physicians-in-chief, each being in charge of separate departments—male, female, admission wards, etc.

In most of the provincial asylums this dual authority has ceased to exist. The system was not altogether a success in small asylums, the line of demarcation between the two authorities being difficult to define. Conflicts between the two were not infrequent, and in consequence a medical director is at the head of these institutions with both administrative and medical duties.

There are twenty-one administrative directors in the country.

The next grade consists of assistant-physicians (*médecins adjoints*), who are under the authority of the physician-in-chief or medical director. In most of the asylums of the Seine there are no officers of this grade, though all the provincial asylums have one or more. In the Seine asylums each physician-in-chief has an *interne* to assist him in the work of his department (see below).

The next grade is the *interne*. Nearly all asylums have officers of this rank. They are recruited as medical students of a certain standing and perform the duties of a house-physician. They are appointed for a limited time.

## CONDITIONS OF APPOINTMENT, SALARIES, ETC.

Appointments are made in the service almost entirely by public examinations, the conditions being much the same as in the hospitals, which are also State controlled.

The examining body or jury is known as the "concoirs." Details of the appointments in the various grades are of sufficient interest to be described fully.

The student who wishes to specialise in mental disease endeavours to obtain a position as *interne*. A public "concoirs" is opened once a year for the nomination of candidates, advertisements of which are sent round to the hospitals and medical schools. Doctors of medicine of one of the State universities and students of medicine who have reached a certain stage towards their degree are allowed to enter for the examination. Candidates must be under 30.

The jury or examining board consists of seven members.<sup>(1)</sup> Four physicians-in-chief selected from the asylums of the Seine, a physician-in-chief from the asylum section of the Bicêtre or Salpêtrière, a hospital physician and a hospital surgeon. The examination is as follows:

- (1) A two-hours' paper on medical or surgical anatomy. Thirty marks.
- (2) A two-hours' paper on the anatomy and physiology of the nervous system. Twenty marks.
- (3) An oral examination on medicine or surgery. The candidate is given a question, is allowed five minutes for reflection, and then five minutes is given for his reply. The examination is open to the public.

The successful candidates have the choice of asylums in order of their place in

<sup>(1)</sup> These regulations are those for the asylums of the Seine and are more or less representative.

the examination. The appointment is for three years, and if they have obtained their M.D. at the end of this period the internes may be appointed for another year, and those who have passed the examination (concours) for assistant-physician can remain for a fifth year.

The salary of internes is as follows :

1st year	£33	} with board and lodging.
2nd "	£41	
3rd "	£49	
4th "	£57	
5th "	£63	

In exceptional cases an allowance is made *in lieu* of board and lodging and the interne does not reside in the asylum.

The next grade is that of assistant physician.

As in the case of internes, these posts are obtained by competitive examinations. The "concours" is held once a year in Paris for the whole of the French public asylums service. The candidates must be of the French nationality, doctors of medicine of one of the State universities and under thirty-three years of age. They must have either been internes for two years in an asylum or hospital, or lecturers in one of the medical faculties. The application must be accompanied by a *résumé* of the candidate's original work.

The selected candidates are examined by a jury composed of the following :

- (1) An inspector-general of asylums (president).
- (2) A professor chosen by the Minister of the Interior from a list of three submitted by the Faculty of Medicine of Paris.
- (3) Two professors of mental diseases of the University.
- (4) Three physicians-in-chief from the public asylums.

The examination is as follows :

- (1) A three-hours' paper on the anatomy and physiology of the nervous system. Thirty marks.

- (2) A written paper (two hours) on the organisation of asylums and legislation in respect of the insane. Ten marks.

- (3) Ten marks are given for general qualifications and experience.

- (4) An oral question on medicine or surgery. Twenty minutes are allowed for reflection and fifteen minutes for the reply, which is delivered before the jury. Twenty marks.

- (5) A clinical test. Fifteen minutes is allowed for the examination of an insane patient, and after this the candidate has to deliver a lecture of twenty minutes on the case. Twenty marks.

- (6) A written clinical examination. One hour is allowed for a written discussion on an insane patient. Twenty marks.

The candidates are classified according to merit, and the choice of asylum depends on the position in the examination.

The salaries of assistant-physicians are as follows :

Exceptional class	£165 per annum	} with quarters, fuel and light.
1st class	£145 " "	
2nd "	£125 " "	

An increase in salary from one class to another may take place at the end of two years, but not before.

The highest grade is that of physician-in-chief or medical director, according to the method of administration in vogue. They are recruited from the assistant-physicians and are appointed by the Minister of the Interior. In the asylums of the Seine, however, since 1907, physicians-in-chief are appointed by examination just as in the lower grades.

This regulation met with some opposition when first instituted.

Assistant-physicians must have served at least two years before being nominated to the higher grade.

The salaries of physicians-in-chief are as follows :

Exceptional class	£330 per annum	} with lodging, fuel and light.
1st class	£290 " "	
2nd "	£250 " "	

Physicians in asylums are not prohibited from consulting practice and may be married.

In the departmental asylums the officers are liable to be transferred from one asylum to the other. This does not apply to the asylums attached to hospitals, *e.g.*, Salpêtrière. The doctors in these institutions are appointed by examination at a "concours" instituted by the hospital authorities.

#### CLINICS.

There are seven universities in France, and in each there is a clinic for mental diseases at one of the asylums.

St. Anne's, one of the departmental asylums, is the clinic in Paris and connected with the faculty for mental diseases of the University. All the pauper insane are admitted to this asylum and are later drafted on to the other departmental asylums.

The staff is as follows: (1) The Professor of Mental Diseases; (2) two Assistant Professors (heads of clinic); (3) lecturers on (a) pathology, (b) physiology, (c) psychology—two in number, (d) ophthalmology; (4) three physicians-in-chief; (f) one assistant physician; (5) eight internes; (6) an honorary surgeon; (7) a pharmacologist, with three internes. The physician-in-charge of the admission block is the medical superintendent, and there is an administrative director.

There are various well-equipped laboratories for scientific research.

The clinical lecturers, or "chiefs-of-clinic" as they are named, are appointed by examination. Their position is that of assistant-professor and they rank as assistant-physicians, with the same rate of pay. The post is held for three years.

#### RATIO OF MEDICAL STAFF TO PATIENTS.

The majority of provincial asylums have been for 400 to 600 patients. As a rule there are a medical director, an assistant-physician, and one or more internes.

The largest asylums are in connection with the department of the Seine. The staff of St. Anne's has already been detailed. The asylum of Villejuif has an administrative director, five physicians-in-chief, and four internes. The patients number 1,500. Ville Evrard Asylum, with 620 pauper patients, has an administrative director, with three physicians-in-chief, and three internes. In addition there is a section for private patients with a physician-in-chief and assistant-physician. Maison-Blanche Asylum, with 1,500 patients, has four physician-in-chiefs and four internes.

It is thus somewhat difficult to compare these figures with the English asylums, and the system is so different. Each physician has a separate department and is assisted by an interne or house-physician. This refers, of course, to the large asylums of the Seine.

The cost of most of the Seine asylums is about £350 a bed.

From the foregoing details it is seen that the asylum service in France is a national one, the staff being recruited entirely by competitive examination. It obviously ensures a service of medical men with a special training and knowledge, both scientific and administrative.

#### THE STATUS OF ASYLUM MEDICAL OFFICERS IN ITALY.

By DAVID ORR, M.D.

(From Dr. SCIUTI.)

THE post of assistant medical officer in an asylum is usually given to the applicant who has acquired a knowledge of insanity: this can be obtained at any of the clinics or by becoming a voluntary assistant in an asylum. Here there is every facility provided for instruction in clinical psychiatry, psychology, neuropathology, and allied subjects.

Assistant medical officers are permitted to marry, and may occupy quarters on the estate, or where these are not provided, live outside. The salary differs in the various provinces.

In sixteen Italian asylums each assistant medical officer is autonomous in his own section, and is responsible for the treatment of patients and the discipline of the staff. In this there is nothing tending to minimise the authority of the superintendent.

There are many points in asylum practice in Italy which demand reform. The salaries are rather low, but in many provinces this is in process of being rectified. With regard to the professional attainments of the staff, it is suggested that all on entering the asylum service must go through a probationary period of two years during which they must acquire a thorough training. Then on the recommendation of the medical superintendent they may be appointed to the permanent staff on the distinct understanding that they continue their studies and research.

(From Prof. BIANCHI.)

There are clinics for nervous and mental disease constructed and maintained by the State. In these incipient cases of insanity are treated. The work of these clinics has been as satisfactory as that of those in Germany.

Each assistant medical officer in an asylum has control of 150 patients. In a few asylums they live in quarters and are allowed to marry; in the majority of asylums permission is given to live outside. In the majority of provincial asylums houses are only provided for the superintendent and deputy-superintendent.

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#### THE TEACHING OF PSYCHIATRY AND THE STATUS OF MEDICAL OFFICERS IN THE UNITED STATES AND CANADA.

By J. GRIMMOND SMITH, M.D.

FOLLOWING the lines of inquiry suggested by the Committee of the Medico-Psychological Association certain questions—as below—accompanying a circular letter were sent to twenty-two gentlemen, whose names were kindly supplied by Dr. Morris J. Karpas, of the Bellevue Hospital, New York City. Fourteen replies resulted, and these have been summarised in this report.

It was not possible in every case to separate the information given, as between "clinic" and "asylum," but where possible this has been done. Where there is no separate clinic there is practically always what amounts to the same thing, *i.e.*, a special ward or pavilion perhaps, in most cases attached to, or in connection with, the State hospitals for the insane.

(1) *The constitution of the governing body* consists in nearly all cases of a State board of trustees, though at the John Hopkins Hospital and Albany State Hospital there is no State control.

(2) *Relation to the State and to the universities.*—In most cases they are State-supported or State-aided, but have no direct connection with the universities. In some instances teaching is carried on in connection with the medical schools, such as Harvard and John Hopkins University. The psychopathic department of the Boston State Hospital was established with the object of improving education in psychiatry.

(3) *Arrangements concerning admission of patients, etc.*—(1) Practically all admit patients voluntarily; (2) temporarily for about seven days on application of the police or of a medical man—three days' notice of a wish to leave being required; (3) regular admission by certificate. At the Albany State Hospital it is expressly stated that they have no desire for compulsory powers, and wish to encourage the use of the pavilion in the same manner as the wards of the hospital.

(4) *Staff of clinic.*—When clinics exist, they being usually in connection with the State hospitals for the insane, it is not possible to separate the respective staffs; but in those instances where a separate building is employed for the purpose, such as the Boston State Hospital Psychopathic Department and the John Hopkins Hospital at Baltimore, there are the following: A director or professor in charge, a chief of staff, assistant physician, junior assistant physician, internes, laboratory and out-patient assistants.

(5) *Facilities for research and post-graduate study.*—In many instances complete laboratories and excellent clinical opportunities are available, in others limited opportunities only, but the tendency is to provide facilities even if they are not always taken advantage of.

(6) *Relevant variations in the Lunacy Law.*—There does not appear to be any desire to alter existing laws since the facilities for getting patients under treatment seem to be fairly good as mentioned under No. 3. The voluntary admissions and temporary admissions are comparatively new departures.

(7) *Asylums: Municipal or State. If the latter, advantages or disadvantages found in practice.*—Practically all State asylums are under State supervision. Some state that municipal control when tried was not a success and that there has been a vast improvement since becoming State-controlled; at the same time a few replies mention the liability to political influences, though the general idea is that there are no serious disadvantages, whilst consistent policy and more liberal support are advantages mentioned. Dr. Adolph Meyer thinks that a well-organised combination of both works best, as at his own clinic at Baltimore.

(8) *Number of medical officers in proportion to patients.*—In the Massachusetts hospitals, which are a combination of reception hospital, custodial institution and infirmary, they have one physician to 90 to 100 patients. In the purely custodial asylums which do not receive new cases, one physician to 125–250. Hospitals for epileptics, one to 125. In the other States the proportion varies between one to 50 and one to 300. In one or two instances the replies given to the question were—"not nearly enough" or "inadequate."

(9) *Salaries considered in relation to standard of living.*—The general impression is that salaries are inferior to what they should be, and fail to attract suitable men. Other professional lines are better paid. Superintendents receive about \$3,000 and maintenance, though in a few instances up to \$4,000, the lower medical officers in proportion. The second rarely receive over \$2,000 and maintenance, though some States, like New York, have a higher standard.

(10) *Facilities for marriage.*—The authorities appear to be lenient concerning the maintenance of families of medical officers. It is probably the rule that the second medical officer is a married man, and often some of the others. In a few instances all are married. The accommodation for married men is not always satisfactory.

(11) *Proportion of medical officers married.*—From a half to a third.

(12) *Whether house provided.*—A house is provided for superintendent only, except in one or two of the large asylums. The quarters are usually not good.

(13) *Whether increased salary or maintenance on marriage.*—No increase except under exceptional circumstances, but maintenance is usually accorded.

(14) *Methods of appointment and promotion and by whom appointed.*—Officially made by boards of trustees or boards of control, but as a rule these appointments are in the hands of the superintendents. In some states the nominations are made after Civil Service examinations, in others non-competitive and by selection; in a few appointments are on one year's probation. In one institution the junior staff are all the personal employés of the superintendent.

(15) *What points are taken into consideration? Is training in psychiatry necessary?*—Special training in psychiatry is not considered necessary for men entering, but probably about one year's residence in a general hospital required.

In cases where examination is required the standing on the list affects the appointment. In many cases the best man available, the choice being restricted.

(16) *Special remarks on Canada.*—Little information could be gained as to Canada, but the general impression is that the trail of the politician is still very evident in Canada in the asylum service, where all appointments and promotions are political and the service is greatly hampered thereby. As yet no psychiatric clinic has been provided, although it is the intention to do so at an early date; when established it will be maintained by the Government, but under a commission or board of trustees. The intention is to spend on the construction of a clinic, laboratories, etc., at least £1,000 per bed.

All asylums are under direct control of the Government, and patients are admitted by certificate, though in certain cases arrangements have been made to admit voluntary patients. Asylum staffs are too small to enable scientific work to be done, and facilities for research and post-graduate study are *nil*. Salaries

are inadequate. The tendency is to change the whole status of the asylum service, but progress is slow.

(17) *General remarks.*—The conditions in U.S.A. and in England are so radically different that comparison is difficult. Each State appears to make its own provision both as to methods and character of care and of commitment, and in no two do they appear to be alike. The variations are very great, and sometimes extreme, from the scientific to the merely custodial. Even in a single State the conditions vary, but an improvement is observed as politics is being eradicated.

(18) I am indebted to the following for the information embodied in this report, so that it covers the States mentioned :

Professor Adolph Meyer, Baltimore, Maryland.

Dr. S. D. Wilgus, Kankakee, Illinois.

Professor E. S. Southard, Psychiatric Institute, Boston, Mass.

Dr. G. D. Tuttle, Waverley, Mass.

Dr. H. P. Stedman, Jamaica Plains, Mass.

Dr. W. F. Drewry, Petersburg, Virginia.

Dr. H. A. Tomlinson, St. Peter, Minnesota.

Dr. W. A. White, Washington.

Dr. C. K. Clark, Toronto, Canada.

Dr. Mosher, Albany, New York.

Dr. T. Salmon, New York City.

Mr. C. W. Beers, New Haven, Connecticut.

Dr. W. L. Russell, Bloomingdale Hospital, New York.

Commissioner May, Albany, New York.

#### THE FACILITIES FOR THE TEACHING OF PSYCHIATRY AFFORDED BY UNIVERSITIES AND MEDICAL COLLEGES IN ENGLAND, SCOTLAND AND WALES.

By EDWARD GANE, M.D.

*Note.*—In the majority of instances one or more of the following courses for instruction are provided. They will be referred to under their respective numbers. Additional facilities for study will be mentioned under the name of the medical college providing them.

1. Lectures on Psychological Medicine as required for the examinations of the Universities and Royal Colleges.
2. Lectures on Mental Psychology, especially adapted to the M.D. and M.S. (Lond.) examinations.
3. Clinical demonstrations at an asylum.

#### LONDON.

*Note.*—The name of the Asylums at which clinical demonstrations are given is mentioned in brackets. The numbers in brackets refer to the average size of the Class No. 1.

*St. Bartholomew's Hospital.*—1, 2, 3. (Claybury.)

*St. Thomas's Hospital.*—1, 2, 3. (Neighbouring Asylums) (40). There is a weekly O.P. Department.

*Guy's Hospital.*—1, 2, 3. (Bethlem Hospital) (70-80). The clinical course includes instruction in the principles of asylum management. Extra facilities by arrangement with the Medical Superintendent are given for periods of three months to extern students.

*St. Mary's Hospital.*—1, 3. (Hanwell.) A weekly O.P. department occasionally attended by students. Each term one clinical demonstration and lecture is given at the school. The Students' Medical Society devote one evening a year to a subject in psychiatry. A special course would be arranged for any student desirous of entering for a diploma in psychiatry. A St. Mary's man (an asylum

A.M.O.) passed this year the examination in mental diseases for the M.D. (Lond.).

*University College Hospital.*—1, 2, 3. (Long-Grove Asylum) (30-40). Special arrangements will be made when necessary to meet the requirements of candidates for one or other of the diplomas in psychiatry.

*St. George's Hospital.*—1, 3. (Hanwell).

*Middlesex Hospital.*—1, 3. (Long-Grove Asylum.) There is a special department for nervous diseases in charge of the Dean, Dr. H. Campbell Thompson. The Council approve of the principle of developing the teaching in psychiatry, but defer arrangements until a more definite demand for them is shown.

*London Hospital.*—1, 3. (Bethnal House Asylum.) The Asylum, which is within a few minutes' walk from the Hospital, is open daily to students from 10 to 12.

*Royal Free Hospital.*—No systematic teaching in psychiatry given.

#### THE PROVINCES.

*Oxford University.*—No teaching in psychiatry given.

*Cambridge University.*—There is a diploma in psychiatry for which no courses have been arranged as yet.

*Manchester.*—1, 3. (Royal Asylum, Cheadle.) Three students have entered this session for the diploma granted by the University.

*Liverpool.*—1, 3. (County Asylum, Rainhill) (20).

*Birmingham.*—No special teaching given. The question of affording facilities is under consideration.

*Durham.*—1, 3. (County Asylum, Morpeth.) There is a diploma in psychiatry for which no candidates have as yet entered. A special course will be arranged when required.

*Sheffield.*—1.

*Leeds.*—1, 3. (Wakefield) (28). There is a diploma in psychiatry which has been conferred on two candidates. At Wakefield Asylum clinical clerks (qualified or not) are taken gratis, and are given board, lodging and washing for their services, and receive instruction in the wards and laboratories. Assistant medical officers from other asylums would be eligible, and could obtain gratis the training necessary for their Diploma in Psychiatry of Leeds.

*Bristol.*—The question of providing special courses for instruction in psychiatry is now being considered by a committee of the Medical Board.

#### SCOTLAND.

*Edinburgh.*—There is a diploma in psychiatry, already conferred in four instances. Six candidates have entered this session for the diploma. The following is an abstract of the course of instruction which extends over the winter and summer sessions: (1) Lectures and demonstrations on the anatomy and development of the brain and spinal cord; (2) lectures and demonstrations on the physiology of the nervous system, including its experimental study, histology and chemistry; (3) practical bacteriology in its relation to mental diseases; (4) lectures on psychiatry, general and advanced; (5) clinical neurology; (6) psychology, lectures and laboratory work. The fees for the full course amount to 27 guineas, in addition to the examination fee of 10 guineas.

*Glasgow.*—1. More detailed information promised, not yet received.

*Aberdeen.*—1, 3. Class examinations are held at the end of the course and certificates granted to successful students. Special instruction is given when desired to candidates for the certificate of the Medico-Psychological Association. There have been no entries for several years. No special instruction is given to meet the requirements of a diploma in psychiatry.

#### WALES.

*Cardiff.*—The establishment of a diploma in psychiatry by the University of

Wales is being urged. If instituted, a special course to meet its requirements would be provided by the Medical College.

*The writer desires to thank the Deans of Medical Colleges and Lecturers on Mental Diseases for their courtesy in supplying the material for this report.*

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LEGAL CONDITIONS AS TO THE CARE AND TREATMENT OF  
POOR PERSONS SUFFERING FROM MENTAL DISORDER IN  
ENGLAND AND WALES, WITH REFERENCE TO THE POSSIBLE  
ESTABLISHMENT OF PSYCHIATRIC CLINICS.

The Lunacy Act of 1890 authorises county councils to provide asylums for resident patients duly certified, and to apportion the charges.

It does not permit any expenditure on out-patients or voluntary boarders, and does not sanction the use of any part of an asylum as a "hospital."

It has been suggested to erect receiving houses in London, to which all poor persons, on becoming insane, should be admitted from their homes, and to which direct application for treatment might be made. Patients would there be cared for and treated under a simple detention order for a short period, if found to be suitable inmates; they would then be sent to an asylum, unless giving satisfactory evidence of convalescence.

The establishment of these receiving houses has been strenuously opposed by boards of guardians who are the paying authorities.

Under the existing conditions out-patients are seen at several of the London general hospitals, but no facilities exist for ward treatment.

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THE STATUS OF PSYCHIATRY AND OF ASSISTANT MEDICAL  
OFFICERS IN SCOTLAND.

BY ROBERT B. CAMPBELL.

It does not appear that any alterations are necessary in the existing Scottish Lunacy Acts in order to promote the proper study of psychiatry and raise its status as a branch of medicine. It is extremely unlikely that the law of the country will ever be so altered as to remove the legal technicalities which are required at present for the admission of a patient into an asylum.

In Scotland there are already in three centres (Edinburgh, Glasgow and Dundee) hospital wards set apart for the reception and treatment of patients suffering from early and incipient insanity. These patients are admitted and treated without legal technicalities of any kind. They are not under certificates, nor even under the cognisance of the Commissioners in Lunacy. It is recognised that a wider use of such wards would render it unnecessary to send many cases to asylums, and would in time remove the feelings of repugnance from the public mind towards mental diseases.

At present in Scotland there are two joint asylums pathological laboratories, which are maintained by voluntary contributions from the various asylum boards. These contributions, however, are not legalised by statute. It is strongly urged that contributions towards the maintenance of such laboratories should be compulsory, and that the law should empower asylum boards to pay such contributions out of money raised in the usual way by assessment. As a matter of fact, in last year's Lunacy (Scotland) Bill, introduced by Lord Pentland, such an arrangement is provided for.

There is, so far as the writer is aware, no reference to assistant medical officers in the Scottish Lunacy Acts. The term "medical officer" is used when necessary, and applies equally to all medical officers, from the medical superintendent downwards. There is certainly no reference in our Lunacy Acts which unduly subordinates an assistant medical officer.



THE ESTABLISHMENT OF PSYCHIATRIC CLINICS AND THE  
STATUS OF ASSISTANT MEDICAL OFFICERS IN IRELAND.

By W. R. DAWSON, M.D.

I.

As regards the question of the establishment of clinics, the legal enactment bearing on the subject is 5 and 6 Vict., cap. 123, section 49. According to this it would be possible :

(1) To treat any insane patient in an ordinary hospital ward, whether for pay or not, without certificates, if such patient enters and remains *voluntarily* ; or—

(2) To detain any insane patient against his will in such hospital ward provided that he is not kept for pay. The only doubt possible in this case lies in the interpretation of the word "pauper" in the Section referred to, but it appears quite clear that it would cover the ordinary class of free hospital patients.

If an insane patient were to be detained against his will for pay, however, the ordinary regulations of the lunacy law would come into force ; but this would scarcely affect the establishment of ordinary clinics, which seems to be quite feasible under existing law.

II.

The status of assistant medical officers is in some respects better in Ireland than in Great Britain. They have a statutory position under the Local Government (Ireland) Act of 1898 (61 and 62 Vict., cap. 37), which enacts (Sect. 84 (1) (a) ) that there shall be at least one in each asylum, who, equally with the resident medical superintendent, "shall not be appointed nor removed, nor shall his salary be fixed or altered, without the concurrence of the Lord Lieutenant" (Sect. 84 (4) ). It also provides that every medical superintendent must have served for at least five years as assistant medical officer.

In other respects the conditions of service of the assistant medical officers rest with the asylum committees, and are embodied in the rules made by these bodies for the asylums under their care, which, when they have received the sanction of the Lord Lieutenant, have the force of statutes. These are all largely modelled on the old rules and regulations of the Privy Council, which were in force in all Irish district asylums prior to 1898, and lay down that :

(1) Candidates for the post of assistant medical officer must be unmarried on appointment. There is, however, nothing to prevent leave being given to marry afterwards, and as a matter of fact no case has arisen in which leave to marry was refused, and a considerable number of assistant medical officers are married.

(2) The assistant medical officer is assigned the duties formerly discharged by the visiting physician, including that of consulting with the resident medical superintendent as to the mental condition of patients before discharge, and signing conjointly a certificate of fitness, etc., this constituting a further recognition of his position. (In a few asylums, however, there is still a visiting physician.)

(3) The assistant medical officer is to "consult with" the resident medical superintendent before leaving the asylum.

(4) Although it is apparently assumed throughout that assistant medical officers shall reside in the asylum, there is no legal provision or rule to that effect, and it would therefore be possible for an assistant medical officer to be allowed to sleep out, provided that one medical officer is always in the institution.

Under these circumstances it is not apparent that their position can be improved by any probable legislation.

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STATE AID OF RESEARCH INTO MENTAL DISEASES.

A conference of representatives of a considerable number of asylums for the insane throughout the country, called by the Visiting Committee of the Cardiff City Mental Hospital, was held on December 5th at the Guildhall, London, to

discuss the desirability of pressing for Government grants towards the cost of specific researches in mental diseases.

The representatives were welcomed by the Lord Mayor of London (Sir David Burnett), and the Lord Mayor of Cardiff (Mr. Morgan Thomas) presided over the subsequent proceedings.

The resolutions submitted to the meeting by the conveners were as follows :

"That this meeting of representatives of the visiting committees of asylums of England and Wales is of the opinion (a) that the prevention of insanity by heredity transmission and of acquired and recurring insanity, as also the cure of acquired insanity, are of prime importance to the State ; (b) that it is expedient that State aid be given in the shape of grants towards specific scientific researches having for their object the prevention and cure of insanity, such grants to be made through the medium and upon the recommendation of His Majesty's Commissioners in Lunacy."

"That copies of the above resolution be forwarded to the Prime Minister, the Lord Chancellor, the Chancellor of the Exchequer, the Home Secretary, and the Commissioners in Lunacy."

The LORD MAYOR OF CARDIFF, in opening the discussion, spoke of the excellent work done in the comparatively few research laboratories at present attached to asylums. The English system of local government had delegated the administration of hospitals for the insane to local bodies, but often work might be done there that accrued to the benefit of the State ; anything which tended to reduce insanity was of more than local advantage. Specific research often demanded expenditure far beyond what could be reasonably expected of a local institution, and in many cases medical superintendents and officers of asylums provided from their own private resources for research work. That was a state of things that should not be necessary. Under the Insurance Act the Government had set aside a grant of a million and a half to deal with tuberculosis, and a definite portion of this sum was ear-marked for research work. Government grants were also available for research work in other departments of public health ; indeed, it appeared that lunacy was the only disease in respect of which no research grants were made.

Sir GEORGE SAVAGE, in moving the resolution, referred to the advances of public opinion in regard to the treatment of the insane during the last forty or fifty years. Now, instead of the first consideration being to protect society from the dangerous lunatic, the treatment and, if possible, cure of the lunatic was regarded as of prime importance. Beside the "dominant" of heredity, there were a large number of causes of insanity depending upon bodily and other conditions. It had come to be regarded as the chief function of the doctor to prevent disease, and if anything could be done to deal with such a disease as, for example, general paralysis of the insane, great benefit would accrue to the community. Although immediate results might not be obtained from research work, in the long run definite advances must occur, and this work could not be properly carried on by isolated efforts.

Dr. J. SHAW BOLTON, Superintendent of the West Riding Asylum, Wakefield, seconded the resolution. He alluded to the increase of insanity, mentioning that there were more than 135,000 certified lunatics in the country, or 1 to 269 of the general population. A diminution could only be brought about as the result of clinical, physiological, histological, chemical and bacteriological research. Up to the present research work had been carried on by a few individuals, as the result of whose work the reputation of asylums had greatly increased. That this work had been possible was due to the public spirit of committees which had provided laboratories and means of research. Work of this kind which was not verified by others and tested in asylums throughout the country was of very little value, and it was important to give opportunities to medical officers of asylums of taking advantage of the work done in other institutions. The Government should contribute towards the cost of this work, because it was done on behalf of the public at large ; grants would stimulate individual students and increase their sense of responsibility. At present it was not unknown for expensive research apparatus to lie about unused.

Sir THOMAS CROSBY, ex-Lord Mayor of London and President of Bethlem Hospital, considered that the *post-mortem* methods of research ordinarily employed in regard to insanity had not been productive. The misery caused by the terrible

scourge of insanity was so wide-spread that it should be scientifically examined in the hope of reducing its incidence.

Dr. JAMES SOUTAR, President of the Medico-Psychological Association, explained that he was present as a representative of one of the registered hospitals for the insane, and not as representing the Association, which had not up to the present considered the question before the conference. He was entirely in sympathy with the principle of the resolution; in fact, he thought there should be some extension of its proposals. Nevertheless, he doubted whether it was wise for a meeting of representatives of visiting committees to express such definite views as regards the prevention and cure of insanity as were contained in Clause (a) of the resolution. That was not the place to discuss the effect of heredity in the transmission of insanity; many competent observers maintained that its influence had been somewhat overrated, and that its potency varied enormously in different cases. By approving of this portion of the resolution the meeting would be committing itself to the principle of the regulation of the propagation of the species. Examination of family histories over a long period showed that where a case of insanity occurred it was usually counterbalanced by a large number of competent persons from the same stock. Neither could the meeting attempt to discuss the distinctions between acquired and recurring insanity—a matter which baffled medical men who had made a special study of this question. The meeting should content itself with urging upon the Government the importance of research in the direction of the prevention and cure of insanity. He also suggested that grants should be made towards the establishment of clinics for the treatment of cases of incipient mental disorder. In the case of well-to-do persons, insanity, by being taken in time, was often checked because treatment—medicinal, dietetic and general—could be carried out. Such persons went back to their ordinary mode of life without having been certified insane. The lot of the poor was in sharp contrast: they struggled against delusions and the signs of approaching insanity until they were taken to asylums. Clinics would be valuable schools for the young practitioner, who would learn to recognise the early symptoms of mental trouble, and this knowledge he could apply afterwards in general practice.

Sir N. W. HELME, M.P., agreed that clinics would be of immense value. He thought the proposed grants should not be made through the medium of the Commissioners in Lunacy, as that body was not controllable by Parliament.

Alderman CROWTHER, of the West Riding Asylum, thought there should be a pathological department attached to every asylum, and that the medical officers should have special knowledge of this subject. He considered that research would be best carried on at one national centre whose findings would be at the disposal of all the asylums. Such an institution should be provided entirely by the Government, and the results would be far more satisfactory than would be obtained as a result of grants to a number of isolated institutions.

Dr. E. S. PASMORE, Medical Superintendent to the Croydon Mental Hospital, urged that grants in aid would encourage emulation in scientific research amongst the medical officers of various asylums, and that more valuable results would be obtained as the result of work carried on throughout the country than at a central institution.

Dr. T. W. McDOWALL, Medical Superintendent of the Northumberland County Asylum, said the medical profession had long desired to see the professional requirements of the junior men in the asylums improved. The difficulty was that most young practitioners had no idea of spending their lives as asylum officers, consequently they rarely applied their minds fully to the difficult problems peculiar to this class of work. From the isolated position of asylums those who were anxious to improve their knowledge of mental diseases had great difficulty in getting into touch with centres of teaching. The Medico-Psychological Association congratulated itself that it had succeeded in persuading several universities to open courses of instruction for asylum medical officers. Cambridge, Leeds, Manchester, Edinburgh and Durham had instituted a diploma, but there were difficulties in candidates obtaining courses of instruction. On the question of mental clinics, Dr. McDowall mentioned that an experiment of a mental department of a general hospital with which he was acquainted was not successful, because few people realised when they were suffering from symptoms of incipient insanity. He did not agree with the suggestion of a central laboratory only; it was of the

utmost importance to develop industry, research and intelligence in every asylum throughout the country.

Dr. E. GOODALL, Superintendent of the Cardiff Mental Hospital, spoke of the work done in the laboratories of that institution, and remarked that research into mental diseases was becoming more and more difficult, recondite, tedious and costly.

Ultimately the resolution before the meeting was carried unanimously in the following amended form:

"That the prevention and cure of insanity is of prime importance to the State; that it is expedient that State aid be given in the shape of grants towards the prevention, cure and treatment of mental disease, and that copies of the resolution be forwarded to the Prime Minister, the Lord Chancellor, Chancellor of the Exchequer, Home Secretary and Commissioners in Lunacy."

A deputation was appointed to wait upon the Home Secretary and the Commissioners in Lunacy to place before those authorities the views of the conference.—*British Medical Journal*, December 14th, 1912.

#### NISI PRIUS COURT.

(Before Mr. Justice Scrutton.)

##### ASYLUM ATTENDANT AND SUPERINTENDENT.

##### *Wakefield Man's Unsuccessful Action for Libel and Slander.*

Herbert Shaw, of Pincheon Street, Wakefield, formerly an attendant at the West Riding Asylum at Wakefield, brought an action for libel and slander against Dr. J. Shaw Bolton, medical superintendent at the asylum, and Harry Topham, the clerk to the visiting committee of the asylum. The latter was really only a nominal defendant. The letter which contained the alleged libel was written by Mr. W. F. L. Horne, who, at the time, was clerk to the committee. Mr. Horne died after the proceedings were instituted, and he was succeeded by Mr. Topham. The defendants denied the slander, and alternatively said it was privileged and again alternatively that it was true.

Mr. W. J. Waugh, K.C., and Mr. R. A. Shepherd appeared for the plaintiff, and Mr. E. Tindal Atkinson, K.C., and Mr. Coutts Trotter for the defendants.

Opening the case, Mr. Waugh said the plaintiff commenced his service at the asylum on June 15th, 1909. He was honorary secretary of the Wakefield branch of the Asylum Workers' Union, and on February 16th, 1911, he wrote to Dr. Bolton, asking for permission to hold a meeting at the asylum on behalf of the union. Dr. Bolton sent for the plaintiff and they discussed on perfectly friendly terms the objects of the union. The doctor told him, however, that the visiting sub-committee had declined to consent to the meeting being held upon the premises. They parted on quite good terms. In April the plaintiff, as secretary of the union, sent out a circular to asylum workers advocating the claims and objects of the union, and urging all asylum workers to join. He gave one of these circulars to a fellow-worker at the Wakefield Asylum and he sent it to a friend of his at the Melton Asylum in Suffolk. He enclosed this circular in an official envelope bearing upon the flap the stamp of the West Riding treasurer. This circular and envelope came into the hands of Dr. Whitwell, the medical superintendent of Melton Asylum, and he wrote to the Wakefield Asylum committee.

In consequence of this communication (said Mr. Waugh) the plaintiff was called before the visiting committee of the Wakefield Asylum, and the circular and envelope which had gone to Melton were handed to him. He said the handwriting was not his, but as far as the circular was concerned he accepted entire responsibility. Asked why he had used the official envelope, the plaintiff replied: "I have never seen that envelope before; it has not been used by me." When it was mentioned to him that it had been returned from Melton Asylum he recollected that a fellow-worker had asked him for the circular to send a copy to one of his friends there. He declined to disclose to the committee the name of his fellow-worker or the name of the attendant who had posted the letter. The interview

over he went out, but a short time afterwards he was summarily dismissed. It appeared, went on Mr. Waugh, that in the plaintiff's absence Dr. Bolton stated to the committee that the plaintiff was unsatisfactory, and that he had been obliged frequently to reprimand him for his general conduct in the wards. The plaintiff was never given an opportunity of disproving these allegations.

Subsequently a question on the matter was asked in Parliament, and the Under-Secretary for State telegraphed to the clerk to the visiting committee for particulars of the plaintiff's dismissal. On April 29th the clerk replied that the plaintiff had not been dismissed because of his connection with the Asylum Workers' Union, or because the circular had been sent in an official envelope. The reason, wrote the clerk, was that the medical superintendent reported to the committee that he frequently had had to report the plaintiff for his conduct in the wards, and that he was not satisfied with him generally. Therefore the committee felt they could do no other than dismiss him.

Mr. Waugh said the plaintiff gave every information to the committee except that he declined to give the names of his fellow-workers concerned in the sending of the letter to Melton. The plaintiff never had an opportunity of answering the charges of misconduct before being dismissed. His case was that what Dr. Bolton said was absolutely untrue, and that the allegation made by the committee in their reply to the Under-Secretary for State also was not true, and that that was not the reason for his dismissal. The real reason, he urged, was that he declined to give the name of his fellow-worker who had used the official envelope for the purposes of his union.

#### THE PLAINTIFF AND THE PATIENTS.

The plaintiff, Herbert Shaw, then gave evidence. He said that neither Dr. Bolton nor Dr. Bevan Lewis, his predecessor, had had occasion to reprimand him; in fact, no official had ever reprimanded him. Coming to the interview with the visiting sub-committee, the plaintiff said he did decline to give the name of his fellow-worker who had sent the circular, and also the name of the attendant who posted it. Whilst he was in the room Dr. Bolton never suggested anything detrimental to his character.

The plaintiff was cross-examined at some length by Mr. Atkinson as to his treatment of some of the patients, and particularly one whose mental affliction caused him to give way to abusive and threatening language.

Mr. Atkinson: Did not you on a certain day in December, 1910, completely lose your temper and attempt to strike him?—It is not true. There was an incident, but your rendering of it is not correct.

The plaintiff said he did remember a patient who was very violent. He was disturbing all the patients under his care because of his language, and witness simply told him to sit down.

Mr. Atkinson: Didn't you completely lose your temper when struggling with the patient?—I did not.

The plaintiff denied another suggestion that on several occasions a charge attendant told him not to deal so roughly with patients.

Mr. Atkinson: When you were called before the visiting sub-committee didn't you walk in with your hands in your pockets?—No, I did not.

Was not your manner all the way through of the most insolent and impertinent character?—It was not.

Before going to Wakefield Asylum were you not employed at Doncaster Post Office?—Yes.

Were you not, on your own admission, convicted of stealing two letters containing money?—I was.

And on your own admission did you state it had been going on for four or five months?—My memory is not very clear.

Can you contradict whether you stated yourself that it had been going on for four or five months?—It might have been stated.

And you were sentenced to six months' hard labour?—I was.

By Mr. Waugh: Between serving his sentence and going to Wakefield Asylum he worked for three years at Messrs. Cradock's wire ropery at Wakefield.

## LABOUR ALDERMAN GIVES EVIDENCE.

One of the witnesses called by the plaintiff was Alderman Dennis Hardaker, a Labour member of the West Riding County Council, who agreed with the plaintiff's version of what occurred when he was called before the visiting sub-committee. He said the plaintiff's manner was not at all insolent, and Dr. Bolton made no mention of any misconduct until after the plaintiff had left the room.

A long legal argument ensued after the luncheon interval as to whether there was any evidence of malice to go to the jury.

His Lordship gave his decision at some length, "inasmuch as it was a case concerning the constantly recurring disputes between trade unions and employers." He held that both occasions were clearly privileged, and that there was no evidence of malice to go to the jury. He therefore gave judgment for the defendants with the usual costs, and added, "I am only too painfully aware that in all trade union cases generally wrong motives are attributed to both the judge and jury."—*Yorkshire Post*, July 25th, 1912.

## UNIVERSITY REGULATIONS.

## UNIVERSITY OF CAMBRIDGE.

## EXAMINATION FOR THE DIPLOMA IN PSYCHOLOGICAL MEDICINE.

Any person whose name is on the *Medical Register* is admissible to Part I of the examination.

Candidates for Part II of the examination must, at the time of entering for the examination, be registered medical practitioners of not less than two years' standing, and must produce evidence of having had twelve months' clinical experience in any one or more of the following institutions:

- (1) Registered mental hospitals in the United Kingdom,
- (2) District, county, borough, city or royal asylums in the United Kingdom, and—
- (3) Such other institutions and licensed houses as are recognised by the University.<sup>1</sup>

The first part of the examination will consist of (1) a paper and (2) a practical and oral examination in the anatomy and physiology of the nervous system, (3) a paper and (4) a practical and oral examination in psychology.

The examination in the anatomy and physiology of the nervous system will include the following subjects:

The structure of nerve-cells and nerve-fibres.

The neuron theory.

The course of the principal nerve-tracts and the connections of the principal nuclei of the central nervous system.

Reflex action. The spinal cord as a path of conduction.

The decerebrate animal.

The localisation of function in the cerebrum. Association areas.

The functions of the cerebellum. The co-ordination of movements.

The development of the brain.

The more usual methods used in examining the structure of the nervous system.

The examination in psychology will include the following subjects:

General analysis and classification of modes of consciousness. The relation of mind and body. Methods of psychological investigation.

Sensation; adaptation, fatigue, contrast, after-effects. Specific nervous energy.

Local signature. Localisation and reference of sensation, normal and abnormal.

<sup>1</sup> This regulation has not yet been formally passed by the Senate.

Perception. Spatial and temporal perception. Illusions. Agnosia. Orientation and its disorders.

Movement; apraxia. Speech; aphasia.

Imagery; hallucinations.

Memory, recognition and their disorders. Association.

Imagination and its disorders.

Thought. Flight and fixity of ideas.

Volition and its disorders. Attention, normal and abnormal. Distraction.

Deliberation. Judgment. Belief. Doubt. Delusions.

Muscular and mental work.

Affective tone. Emotions. Moods. Sentiments.

Personality and its disorders.

Suggestion. Hypnosis. Sleep. Dreams.

The effects of drugs on mental processes.

Individual differences. Temperament. Character.

The second part of the examination will consist of (1) a paper and (2) a clinical and oral examination in neurology; (3) a paper in Psychiatry, Lunacy Law and asylum administration; (4) a paper containing a choice of subjects for an essay in psychiatry; (5) a clinical and oral examination in psychiatry.

The examination in neurology will include the following subjects:

The phenomena resulting from injury and disease of the peripheral nerves.

The course of the principal nerve-tracts and the connections and functions of the chief nuclei of the central nervous system, as revealed by disease.

The methods of examining patients with nervous disease—(1) for diagnostic, (2) for scientific purposes.

The clinical manifestations of the more frequent nervous diseases and their pathology.

The elements of neuro-pathology, including the clinical methods commonly used in examining the nervous system.

The serological and chemical examination of the blood and cerebro-spinal fluid (especially in such diseases as syphilis and parasyphilis).

*Important.*—The foregoing schedules are not to be understood as limiting the scope of the examination, which is intended to test the candidate's theoretical and practical knowledge of every branch of psychological medicine.

The examinations for the Diploma will be held once in each year. In 1914 and in subsequent years the examination for Part I will be held in Cambridge during May or June; that for Part II will be held in London during March or April. In 1913 there will be an examination for Part I, beginning on Tuesday, June 3rd, and for Part II, beginning on Tuesday, July 1st.

Every candidate will be required to pay a fee of six guineas before admission or re-admission to either part of the examination.

A candidate who has passed both parts of the examination to the satisfaction of the examiners will receive a Diploma testifying to his competent knowledge of psychological medicine.

All applications for information respecting this examination should be addressed to Dr. C. S. Myers, The Psychological Laboratory, Cambridge.

Candidates who desire to present themselves for either part of the examination must send in their names together with the requisite certificates to Dr. J. N. Keynes, Registrar of the University of Cambridge, not less than three weeks before the day fixed for the beginning of that part of the examination. The fee for the examination must be paid at the same time.

*Extract from the Amended Report of the Special Board for Medicine of the University of Cambridge on the Establishment of a Diploma in Psychological Medicine.*

Since 1875 an examination and a Diploma in Public Health, and since 1904 an examination and a Diploma in Tropical Medicine and Hygiene, have been established in this University. These examinations have proved successful in the highest degree. They have created opportunities for training in research, they have improved materially the efficiency of those engaged in these special departments of medicine, and the possession of a Diploma in Public Health or Tropical

Medicine has come to be regarded as almost essential for holders of official posts in Sanitary Science at home or in our Colonies and Dependencies abroad.

But as regards the study of Mental Disease and the care of the Insane,—subjects which, together with Public Health and Tropical Medicine, may be regarded as forming the main branches of State Medicine,—no examination or diploma exists. The inadequacy of the ordinary medical curriculum for the training of those who intend to devote themselves to Psychological Medicine cannot now be disputed. At the present time the newly qualified physician enters upon asylum service with a very insufficient knowledge alike of psychology and the physiology of the nervous system, on which psychiatry and neurology depend, and of the modern methods of research in mental and nervous disorders. Once having engaged in asylum work he rarely has opportunity of learning more of these subjects.

The Board believe that an examination in Psychological Medicine and its cognate subjects, if established, could not fail to raise the present standard of efficiency in applicants for asylum posts; and that it would lead to the provision of appropriate courses for the training of those who wish to advance our knowledge of psychiatry. They believe that the Legislature would quickly come to recognise the diploma as a qualification which must necessarily be held by all medical officers of public institutions for the insane, and as desirable in candidates for medical appointments connected with Education, the Poor Law and the Prisons; and that thus, after a very few years, there would be a satisfactory number of candidates for the diploma.

That a general desire for the establishment of a Diploma in Psychological Medicine exists among those best qualified to form an opinion on the subject is shown by the fact that last year the Medico-Psychological Association of Great Britain and Ireland—a body comprising about 700 members of the medical profession, nearly all of whom are engaged in this special department of medicine—addressed a letter through its President to the universities and other examining bodies of the United Kingdom, setting forth the advantages which a special examination and diploma would confer in stimulating research and in advancing our knowledge of the nature and treatment of mental and nervous disorders.

## UNIVERSITY OF DURHAM.

### DIPLOMA IN PSYCHIATRY.

#### I. EDUCATION.

- (1) Every candidate must be a legally qualified medical practitioner.
- (2) He must have attended the following courses of instruction :
  - (a) Development and anatomy (advanced) of the nervous system, with practical dissection of the brain and spinal cord.  
Ten meetings of two hours each.
  - (b) Physiology, histology, and chemistry of the nervous system.  
The work will include :
 

*Histology.*—Methods of preparing and staining nervous tissues. The development and structure of nerve-cells and fibres. Degenerative and regenerative changes in the neuron. The various forms of nerve-endings. The arrangement of the cells and the course of the conducting tracts in the spinal cord, medulla, and pons. The structure of the cerebellum and cerebral cortex.

*Chemistry.*—The chemical composition of white and grey matter, and of the cerebro-spinal fluid.

*Experimental Study.*—The excitability and conductivity of nerve, and the response of the nerve to various forms of stimulus. The functions of the spinal cord, medulla, and cerebellum. Muscular sense, cutaneous sensations, reflex action and fatigue. The functions of the cerebrum.  
Thirty meetings, each of two hours' duration.
  - (c) Pathology. *Post-mortem* technique; the removal of nervous tissues from the body for microscopical examination. Special methods of fixation and staining. Preparation of microscopical specimens by rapid freezing, celloidin, and paraffin methods. Examination of illustrative preparations of disease in the peripheral nerves, cord and brain, including vascular dis-



turbances, inflammatory conditions, the infective granulomata, tumours, general paralysis of the insane and other types of insanity. Demonstrations of naked-eye appearances of recent specimens of disease in the central nervous system. Cytological examination of the blood and cerebro-spinal fluid.

Twenty meetings of two hours each.

- (d) Bacteriology. The same course of instruction as for the degree of Bachelor of Hygiene.
- (e) Psychology and experimental psychology. The work will include: A general description of normal states of consciousness. The relation between physical and mental processes. Conscious and subconscious states of mind, and the development of mental processes. The normal personality. Introspection and psychological analysis. Will, emotion, attention, habit, instinct, perception and ideation.

Methods of experimental psychology, their application and limitations.

Twenty-five to thirty hours instruction.

- (f) Clinical neurology. Ten demonstrations of the rarer forms of nervous diseases, the special methods of their examination and treatment, including operative.
- (g) Psychiatry, in a course of ten hours, supplemental to the course of mental diseases now required for the degree of M.B.
- (h) Clinical psychiatry in a course of six months' duration in an asylum in which instruction is given on at least three days in each week; or a course of three months' duration along with a resident appointment for three months. The holding of six months of a resident appointment in an asylum, with attendance on clinical instruction, will be regarded as equivalent to either of the above requirements.

All the above course of instruction may be attended on the payment of a composition fee of twenty-five guineas.

The fees for these separate courses are given in the University Calendar.

## II. EXAMINATION.

The examination will be held in June each year, and will consist of two parts—Part I embracing the subjects of anatomy, physiology, pathology and bacteriology, and Part II those of psychology and experimental psychology, clinical neurology and psychiatry, systematic and clinical.

Every candidate wishing to present himself must give at least twenty-eight days' notice to Professor Howden, Secretary of the University of Durham College of Medicine, Newcastle-upon-Tyne, and must at the same time send the examination fee and the necessary certificates.

The fee for the examination and diploma in psychiatry shall be ten guineas. Every candidate who fails in either part of the examination must pay a fee of two guineas each time he re-enters.

Candidates who have qualified as medical practitioners before January 1st, 1911, are eligible for examination without attendance on the courses of instruction above mentioned.

N.B.—Candidates may present themselves for either part of the examination, separately; or both together, at their option.

## UNIVERSITY OF EDINBURGH.

### DIPLOMA IN PSYCHIATRY.

The Faculty of Medicine being of opinion that the study of Mental Diseases or Psychiatry has become during recent years a specialised branch of medicine, the University has decided to institute a Diploma in Psychiatry (Dipl. Psych. Edin.).

The Faculty of Medicine anticipate that the Diploma will fulfil the requirements of those who intend to devote themselves to this branch of medicine, and will promote the advance of scientific investigation.

By a recent medical ordinance the University has obtained power to confer

diplomas upon any registered practitioner of medicine, in addition to its own graduates, and the diploma in psychiatry is, therefore, open to any registered medical practitioner who conforms with the regulations.

The Faculty of Medicine is of opinion that some hardship would be inflicted on many who at present hold asylum appointments, if, being desirous of obtaining the diploma, they were required to complete the full curriculum of study. It has therefore been decided that during a period of three years, from October, 1911, candidates for the diploma who have held responsible positions in asylums for not less than two years may be exempted from the course of study in one or more subjects of the curriculum.

The course of study extends over one academic year, consisting of the winter and summer sessions or three terms.

In the Winter Session, commencing in October, the courses of instruction consist of Anatomy of the Nervous System; Physiology, Histology, and Chemistry of the Nervous System; Pathology of the Brain and Nervous System; Practical Bacteriology in its relation to Mental Diseases; and Clinical Psychiatry. In the Summer Session, commencing in April: Psychiatry, Systematic and Clinical; Psychology, including Experimental Psychology; and Clinical Neurology.

There will be two examination periods in the year, *viz.*, in March and in July, and no candidate will be allowed to proceed to the second examination until he has passed the first examination.

The Diploma will be conferred at the graduation ceremony in July.

The following are the regulations which have been approved by the University Court:

I. The diploma (subject to the provisions of Section V hereof) shall be granted to legally qualified medical practitioners who shall have pursued the prescribed course of study for the diploma in the University of Edinburgh, and who shall have complied with all the requirements with respect to examinations herein contained.

II. Candidates shall, subsequent to the date of their graduation or of obtaining a registrable qualification, have attended the following courses of instruction:

- (1) Anatomy of the nervous system. Ten meetings of two hours each, during which the human brain shall twice be dissected. Class fee, £1 1s.
- (2) Physiology, histology, and chemistry of the nervous system. Thirty meetings, each of two hours' duration. Class fee, £3 3s.
- (3) Pathology, macroscopical and microscopical, of the brain and nervous system, including the making of sections and the staining and mounting of morbid specimens, in a course of twenty meetings. Class fee, £1 1s.
- (4) Bacteriology<sup>1</sup> in its relation to mental diseases, including personal work in the preparation of media, the cultivation of micro-organisms, the inoculation of animals, and staining and mounting. The course to extend over a period of about three months, the class meeting daily for two or three hours. Class fee, £5 5s.
- (5) Psychology, including experimental psychology, in a course of from twenty-five to thirty hours' instruction, extending over a period of about ten weeks' duration. Class fee, £2 2s.
- (6) Clinical neurology in a course of ten meetings, supplementary to the instruction given in the ordinary courses of clinical medicine. Class fee, £1 1s.
- (7) Psychiatry in a course of ten hours, supplementary to the course in mental diseases now required for the degree of M.B., or to a similar course. Class fee, £1 1s.

<sup>1</sup> Until this complete course on bacteriology has been fully organised, the course on that subject for the Diploma will consist of the present University course of practical bacteriology, attended either before or after a registrable medical qualification recognised for the purpose by the University Court has been obtained, with the addition of practical instruction and personal work on subjects and methods bearing directly on mental diseases, increasing the duration of the existing course by from twenty to thirty days, for which additional course of instruction (twenty to thirty days) the class fee is £2 2s.

- (8) Clinical psychiatry in a course of about six months' duration in an approved hospital or other institution for the treatment of mental disorders, in which instruction is given on at least three days in each week; or a course of three months' duration along with a resident medical appointment for three months. The holding for six months of a resident medical appointment in a hospital for mental disorders, with attendance on the clinical instruction (if not already obtained), will be regarded as equivalent to either of the above requirements. Class fee—six months' course, £3 3s.; three months' course, £2 2s.
- III. (1) Of the foregoing eight courses of instruction not less than five must be attended in the University of Edinburgh. The remainder may be taken in other universities, or with extra-academical teachers recognised for the purpose by the University Court.
- (2) The fee for attendance on courses of instruction of recognised extra-academical teachers in Edinburgh shall not be less in amount than the fee for the corresponding courses in the University.
- (3) The University Court may, if they see cause, withdraw or suspend any recognition which they may have granted.
- (4) Candidates shall not be deemed to have attended a course of instruction for the purposes of the diploma who do not present certificates bearing not only that they have regularly attended the course, but also that they have satisfactorily performed the work thereof.
- IV. (1) There shall be two examinations for the diploma, namely, one at the end of the winter session, comprising the subjects of anatomy of the nervous system; physiology, histology and chemistry of the nervous system; pathology of the brain and nervous system; and practical bacteriology in its relation to mental diseases; and the other at the end of the summer session, comprising the subjects of psychology with experimental psychology, clinical neurology, and psychiatry (systematic and clinical).
- (2) No candidate shall be admitted to the second examination until he has passed in all the subjects of the first examination.
- (3) The fee for each examination shall be £5 5s. In the event of a candidate being rejected in any subject or subjects, the fee for re-examination in each subject shall be £1 1s.
- (4) Candidates for examination who are not matriculated students of the year in which the examination takes place shall pay a fee equal in amount to the matriculation fee eligible for the academical year.
- V. For a period of three years after the date when the regulations for the diploma shall come into operation—October 1st, 1911—the Senatus, subject to the approval of the University Court, may, if they see fit, after consideration of a reasoned report by the Faculty of Medicine, grant exemption from part of the foregoing requirements to such candidates for the diploma as are at the time medical officials of asylums who have held office for at least two years prior to October 1st, 1911.

## PROGRAMME OF CLASSES.

*Winter Session, 1912-1913.*

Classes.	Days of opening, and days and hours of meetings of classes.	Professors and Lecturers.	Class fees.
Anatomy of the nervous system . . . . .	} 16 Oct., o'cl. {	Professor Robinson and Demonstrators	£ s. 1 1
Physiology, histology and chemistry of the nervous system . . . . .			
	} Oct., „1 {	Professor Schäfer and Assistant	} 3 3

<sup>1</sup> The Professor of Physiology will endeavour, so far as possible, to suit the convenience of candidates in regard to the hours for this class.

Classes.	Days of opening, and days and hours of meetings of classes.	Professors and Lecturers.	Class fees.
Pathology of the brain and nervous system .	{ Dates to be arranged by teachers and candidates .	Asylum Superintendents recognised for the purpose by the University Court . . .	{ £ s. 1 1
Practical bacteriology in its relation to mental diseases . . . .	{ 16 Oct., 4 o'cl.	{ Prof. Lorrain Smith & Univ. Lecturer on Bacteriology, or Asylum Bacteriologists recognised for the purpose . . . .	{ 5 5 (full course) 2 2 (supplementary course)
Clinical psychiatry . . .	{ 9 Oct., 10 ..	{ Dr. G. M. Robertson, Superintendent, Royal Asylum, Morningside	{ 3 3 (six months' course) 2 2 (three months' course)
Clinical neurology . . .	{ . . . . <sup>1</sup>	{ Dr. J. J. Graham Brown . . . .	{ 1 1

*Summer Session, 1913.*

Classes.	Days of opening, and days and hours of meetings of classes.	Professors and Lecturers.	Class fees.
Psychiatry Lectures .	{ 16 April, 3 o'cl. (Mon., Wed. and Fri.)	Dr. George M. Robertson . . . .	{ £ s. 1 1 (or with course on mental diseases £3 3s.)
Psychology, including Experimental Psychology .	{ 16 April, 10 o'cl. (Wed. and Fri.)	Dr. W. G. Smith . . . .	{ 2 2
Clinical psychiatry . . .	{ 15 April, 10 o'cl. (Mon., Tues. and Thurs.)	{ Dr. G. M. Robertson, Superintendent, Royal Asylum, Morningside	{ 3 3 (six months' course) 2 2 (three months' course)
Clinical neurology . . .	{ . . . . <sup>1</sup>	{ Dr. J. J. Graham Brown . . . .	{ 1 1

<sup>1</sup> A course will be held after Christmas, and also during the Summer Session, on dates to be arranged.

*Fees for Examination.*

<i>First examination</i> , in anatomy, physiology, pathology and bacteriology .	£5 5 0
<i>Second examination</i> , in psychology (including experimental psychology), clinical neurology and psychiatry (systematic and clinical) .	5 5 0
	<hr/> £10 10 0
<i>For reappearance</i> —each subject . . . . .	£1 1 0

*Time-Table of Examinations.*

March 3.	Mon.	Names to be entered, fees paid, and certificates shown, on or before this date.
„ 10.	Mon.	{ Pathology of brain and nervous system. Clinical psychiatry.
„ 11.	Tu.	{ Anatomy of nervous system. Physiology, histology, and chemistry of the nervous system.
„ 12.	Wed.	{ Practical bacteriology in its relation to mental diseases. Clinical neurology.
June 17.	Tu.	Names to be entered, fees paid, and certificates shown, on or before this date.
„ 25.	Wed.	{ Psychology, including experimental psychology. Psychiatry.
„ 26.	Th.	{ Clinical psychiatry. Clinical neurology.

N.B.—The above dates are approximate, and are subject to alteration, if found necessary. The hours will be afterwards announced.

## COURSES OF INSTRUCTION FOR DIPLOMA IN PSYCHIATRY.

## ANATOMY.

PROFESSOR ARTHUR ROBINSON AND DEMONSTRATORS.

*Ten Meetings of Two hours each.*

1. General characters of brain.
2. Convolutions and sulci.
3. Cavities.
4. Commissures.
5. Grey matter.
6. The more important tracts.
7. The blood supply.
8. The membranes.
9. } Development, including sympathetic system.
10. }

## PHYSIOLOGY OF THE NERVOUS SYSTEM.

PROFESSOR E. A. SCHAFER AND ASSISTANT.

*Experimental Study of Nervous System.*

Varieties of nerve-fibres and of stimuli. Effects produced by nerve stimulation. Propagation of nerve impulses. Excitability and conductivity of nerve. Electrical response of nerve. Tone of nerve and muscle. Fatigue. Functions of spinal cord and medulla oblongata. Reflex action. Reciprocal innervation. Functions of cerebellum. Functions of cerebrum.

*Histology of Nervous System.*

Methods special to nervous system. Structure of nerve-cells and fibres. Effects of section of nerve. Degeneration and regeneration. Development and growth. Structure of neuroglia. The spinal cord—character of regions—cell groups. Tracts of spinal cord—methods of tracing (*a*) by myelination, (*b*) by degeneration after injury. Medulla oblongata and pons. Cerebellum. Mid-brain. Thalamus and hypothalamus. Corpus mammillare. Corpus striatum. Regions of cerebral cortex. Ganglia. Nerve endings.

*Chemistry of Nervous System.*

Methods of studying. Determination of N.P. ash, etc. Organic constituents of white and grey matter. Products of decomposition. Cerebro-spinal fluid.

## PRACTICAL BACTERIOLOGY.

PROFESSOR LORRAIN SMITH, AND W. E. CARNEGIE DICKSON, *Lecturer.*

*A. Ordinary Course.*

Laboratory courses, each of three months' duration, are held during the winter and summer sessions.

The course includes—

- (1) The methods of bacteriological investigation, separation, culture, and microscopical study of bacteria in fluids and tissues.
- (2) The characters and pathogenetic relations of the commoner organisms and their relations to the production of the special lesions; together with the study of the affected organs and tissues.
- (3) The phenomena of agglutination and other special methods for the distinction of certain pathogenetic bacteria.
- (4) Methods of investigation and preparation of toxins, antitoxins, etc.
- (5) Phagocytosis, hæmolysis, etc.

*B. Special Course.*

After completing the ordinary practical course of bacteriology—

- I. *Special bacteriological diagnosis*, including special methods of examination, culture, and inoculation of animals.
- II. *Immunity* in general, with special lectures.
- III. *Complement deviation tests*.
- IV. *Toxins*, preparation and standardisation of—development of *antitoxins* in animals—methods of obtaining and keeping sera—methods of standardisation—of inoculation of animals—of experiments *in vitro*.
- V. *Cytolytic and hæmolytic methods*.
- VI. "*Vaccines*" and their preparation, including special culture methods—testing action of the "*vaccines*" in animals—preparation and sterilisation of emulsions—estimation of number of micro-organisms in germ emulsion—phagocytic and "opsonic" technique in general.
- VII. *Anti-bacterial sera*—modes of inoculation—standardisation—study of bacteriolysis and agglutination.

## PSYCHIATRY LECTURES.

GEORGE M. ROBERTSON, M.B., *Lecturer.*

(*a*) The ordinary course consists of at least six systematic lectures and ten clinical demonstrations, and its object is a practical one—to describe the common varieties of insanity, to show typical examples of these, and to indicate their treatment and management, with a view to the requirements of general practice. The certification of insanity and its medico-legal relationships are also explained.

(b) The special or supplementary course, consisting of at least nine lectures, treats the whole subject in a more general way, and a few instructive forms in greater detail than the ordinary course. It likewise deals with research work and with current topics of interest in the journals devoted to mental disease. The following subjects will be lectured upon: (1) The history of the treatment of the insane and the evolution of the modern mental hospital; (2) the ætiology and pathogeny of insanity, including heredity and degeneration; (3) the various classifications of insanity; (4) the symptomatology of insanity, including disorders of the senses, intellect, emotions, and volition; and (5) special consideration of the following forms of insanity: (a) Manic-depressive insanity; (b) delirious (toxic) insanity; (c) general paralysis of the insane; (d) dementia præcox; (e) epileptic states; and (6) the therapeutics of insanity.

#### CLINICAL NEUROLOGY.

J. J. GRAHAM BROWN, M.D., *Lecturer.*

The aim of this course is to discuss and to illustrate clinically certain typical varieties of nervous disease, especially such as are likely to be met with in association with mental disorders.

#### PSYCHOLOGY.

W. G. SMITH, M.A., Ph.D., *Lecturer.*

This course consists of lectures and laboratory work, and will deal with the following among other subjects:

I. Outline of the principles and methods of mental science.

The general characters of mental experience. The fundamental forms and connections of mental processes. Mental development. Subconscious and unconscious states of mind. The relation between normal and abnormal states. The normal personality; alterations of personality. The mental condition in hysteria.

Introspection and psychological analysis. The function of experimental procedure in mental science: its relation to physiological methods. The application of experimental methods to the study of abnormal processes. The employment of statistical methods. Applied psychology. The methods and psychological relations of eugenics.

II. Special study of the following subjects, reference being made to the connection between normal and morbid conditions. Attention will be given more particularly to experimental investigations:

Perception and ideation: Sensation, perception of space and time, imagery, and association of ideas, memory, belief.

States of feeling: The simpler affective processes; emotion, sentiment, mood, temperament.

Active processes: Instinct and habit, impulse and volition; reaction processes; fatigue.

Attention: Its nature and laws; its function in mental development. The place of suggestion in mental life.

HARVEY LITTLEJOHN, *Dean.*

October, 1912.

#### UNIVERSITY OF LEEDS.

##### DIPLOMA IN PSYCHOLOGICAL MEDICINE.

1. The examination<sup>1</sup> is in two parts, and is written, oral and practical.

<sup>1</sup> In the current session it will begin on Thursday, December 12th, 1912, and on Thursday, June 19th, 1913. Notice must be given and fees paid not later than November 23rd and June 7th, respectively.

2. Candidates, before entering for the first part of the examination, must produce evidence—

- a. (1) Of being graduates in medicine of at least one year's standing.
- (2) Of having attended approved courses of instruction on the subjects of examination during six months at least after graduation.
- (3) Of having acted as clinical clerk or assistant medical officer in an asylum, recognised for this purpose, for a period of at least six months.
- (4) Of having attended a course of systematic instruction on the normal and morbid anatomy of the brain for a period of six months in the recognised laboratories of the university.
- ((2), (3) and (4) may be taken concurrently, and as evidence of (4) must be produced a laboratory note-book record of practical work which has been regularly inspected and signed by a recognised teacher.)
- or b. (1) Of having acted as assistant medical officer in an asylum of not less than 500 beds for a period of at least two years.
- (2) Of having attended a course of systematic instruction on the normal and morbid anatomy and histology of the brain for a period of six months in the recognised laboratories of the university.
- (as evidence of this must be produced a laboratory note-book record of practical work which has been regularly inspected and signed by a recognised teacher.)
- (3) In addition to the laboratory work under (2), or in lieu of three months thereof, candidates may submit a dissertation which must embody the results of personal observations or original research in relation to psychological medicine, provided always that original work, published in scientific journals, or in the proceedings of learned societies, or separately, shall be admissible in lieu of, or in addition to, a dissertation specially written for the diploma.

*Subjects of Examination.*

*Part I.*—(1) The development, anatomy, histology and physiology of the brain (human and comparative).

(2) The morbid anatomy and morbid histology of the brain from both theoretical and practical aspects.

*Part II.*—(3) Psychology, with especial reference to the symptomatology of mental disease.

(4) Clinical psychiatry, asylum administration, and the medico-legal aspects of insanity.

Candidates, in order to pass, must satisfy the examiners in the clinical part of the examination.

Candidates may present themselves for Parts I and II separately or at the same time, provided that no candidate be allowed to pass in Part II unless he has already passed in Part I. No candidate's name will be published until he has satisfied the examiners in both parts of the examination.

The fee for examination is £5 5s., and must be paid at least fourteen days before the commencement of the examination. For any subsequent examination the fee in each part will be £1 11s. 6d.

Every candidate who has passed both parts of the examination and is legally qualified and registered will receive a diploma in psychological medicine.

**WEST RIDING LUNATIC ASYLUM, WAKEFIELD.**

This institution, which accommodates 2,023 patients, offers unusual advantages to those who desire to make themselves conversant with the treatment and management of the insane. A hospital, containing 330 beds, has been provided for the treatment of acute insanity; and 70 imbecile and idiot children are accommodated in a separate home in which they obtain special training and suitable education. Clinical lectures and demonstrations are given at the asylum by Professor J. Shaw Bolton, Medical Director of the asylum, in connection with the systematic lectures



on insanity delivered at the school of medicine. Clinical clerkships in the wards and laboratories of the asylum may be obtained for limited periods by senior students or qualified medical men or women on application to the Medical Director. Such clinical clerks are provided with free board and lodging, and in return for their services, receive special instruction in psychiatry and in the morbid anatomy of mental disease.

## UNIVERSITY OF MANCHESTER.

### DIPLOMA IN PSYCHOLOGICAL MEDICINE.

A diploma in psychological medicine has been instituted under the following ordinances and regulations:

(1) There shall be a diploma in psychological medicine which shall be awarded by the senate.

(2) The examination shall be in two parts.

(3) Candidates before completing the examination—(1) must have held a registrable qualification in medicine, surgery and midwifery for two years; (2) must produce evidence of having attended subsequent to registration of such qualification:

(a) Approved practical courses of instruction in the development, anatomy and physiology of the central nervous system.

(b) An approved practical course of instruction in the morbid anatomy and pathology of the nervous system.

(c) An approved course of psychology, including experimental psychology.

(d) A course of clinical neurology.

(3) Must produce evidence of having acted as a resident medical officer in an asylum recognised by the university for that purpose for at least one year, which may be taken in two separate periods of six months each.

or, of having attended a course of instruction in psychiatry—systematic, clinical and medico-legal—and asylum administration, at an asylum recognised by the university for that purpose for a period of not less than six months.

(4) Such attendance must be taken at the university during at least two terms of the year of study and during the remaining term either at the university or at some institution approved by the university.

#### *Subjects of Examination.*

##### *Part I.*

(1) The development and anatomy, human and comparative, histology and physiology (including bio-chemistry) of the central nervous system.

(2) Practical morbid anatomy, histology and bacteriology of the nervous system.

##### *Part II.*

(1) Psychology (theoretical and experimental).

(2) Clinical neurology.

(3) Clinical psychiatry and asylum administration.

#### *Order of Examination.*

##### *Part I.*

*The examination will include:*

(1) A written and practical examination on the development and anatomy, human and comparative, and physiology (including bio-chemistry) of the central nervous system.

(2) A written and practical examination in the pathology of the nervous system.

*Part II.*

*The examination will include:*

- (1) A written and practical examination in psychology.
- (2) A written examination in psychiatry and asylum administration.
- (3) A clinical and oral examination in clinical neurology.
- (4) A clinical and oral examination in psychiatry and asylum administration.

Part I of the examination will be held in March and Part II in July of each year. The fee for the examination is five guineas for each part, and must be paid not later than March 1st and July 1st respectively in the year of the examination. For a subsequent examination in the same part the fee will be three guineas.

## RESULTS OF THE EXAMINATIONS HELD IN 1912.

*Diploma in Psychiatry, Edinburgh University.*

William Boyd, M.D.Ed., Robert Dods Brown, M.D.Ed., William Lewis Martin, M.A., M.B., C.M.Ed., George Dunlop Robertson, L.R.C.P. & S.Ed.

*Diploma in Psychological Medicine, Leeds University.*

John Murray Moyers, M.B., Ch.B.Ed., Ethel Annie Waldron, M.B., Ch.B.Birm.

## OBITUARY.

## EDWARD MAZIÈRE COURTENAY, M.B., M.Ch.

It was with a shock of sorrowful surprise that Dr. Courtenay's many friends learnt that he had passed away on December 20th, for the serious symptoms developed so short a time before the end that very few were even aware that he was ill, although his health had been precarious for some years past.

Edward Mazière Courtenay was the only son of Rev. David Carlile Courtenay, a member of an old Newry family, his mother being the sister of Sir Edward Mazière Brady, a well-known Irish Lord Chancellor. He was born on October 16th, 1845, at Ballyeaston, in County Antrim, of which parish his father was then incumbent; and he received his early education at the Royal School, Armagh, from which he passed in due course to Trinity College, Dublin. Deciding to adopt the profession of medicine, he studied at the Trinity College School of Medicine, and at Sir Patrick Dun's and the House of Industry Hospitals, at which latter he held the post of resident pupil, acquiring during his medical course the reputation of being a good practical man. Having graduated in Arts in 1868, he obtained the degree of M.B. in 1871, taking first place at the examination, at which it may be noted that one of the examiners was the famous William Stokes. Shortly after becoming qualified, he was appointed to the post of Clinical Assistant at the West Riding Asylum, Wakefield, where he had the advantage of commencing his life-long study of psychological medicine under the able guidance of Dr., now Sir James, Crichton Browne. Four months later, in May, 1872, he was appointed Assistant Medical Officer to Derby County Asylum, Mickleover, of which institution the late Dr. J. Murray Lindsay was at the time Medical Superintendent; and at both these institutions he gave evidence of that earnest devotion to duty, power of hard work and kindly personal feeling for the patients under his care which distinguished his whole life.

After a year at Mickleover, he was appointed to the post of Resident Medical Superintendent at Limerick District Asylum, and took up his work there in 1873. The task before him was no light one. Limerick Asylum is one of the oldest in Ireland, having been opened in 1825. It was built at a time when a prison was the model governing asylum construction and management, and but little advance on this ideal had been made, as was evidenced by the number of single rooms with small iron windows, by the small day-rooms, the narrow flagged corridors and

the high walls. Dr. Courtenay at once set himself to bring this antiquated institution into line with modern requirements; additional accommodation was provided, dining halls were built, observation dormitories for epileptic and suicidal cases were instituted, and the first asylum bakery and slaughter-house in Ireland were fitted up. Sports and games were at the same time started for the benefit of the patients, and, in short, many of those improvements were effected, the general introduction of which throughout the country he afterwards so greatly encouraged. At the same time he acquired that practical knowledge of asylum construction and administration which was so useful in his subsequent career.

On becoming Superintendent of Limerick Asylum Dr. Courtenay joined the Medico-Psychological Association, and three years later, in 1876, was elected Divisional Secretary for Ireland, a position which he continued to hold until 1888, and which brought him into touch with the most progressive members of the speciality in both countries. After his appointment as Inspector he was elected an honorary member of the Association, and even since his retirement he continued to take an interest in its concerns, having indeed been present at the meeting of the Irish Division in last November, and taken part in the proceedings. He was also elected a member of the *Società Freniatria Italiana* of Milan.

In the year 1890, on the death of Dr. G. W. Hatchell, and the retirement of Sir John Nugent, he was appointed Inspector of Lunatics and Commissioner of Control, his colleague in office being his old friend, Dr. (afterwards Sir) George Plunkett O'Farrell. In this office he found scope for all the qualities of mind and heart which made him so excellent as an official and so popular as a man. The Irish asylums of 1890 were very different from those of the present day, and the new Inspectors at once applied themselves to the task of improvement, one of their first cares being the acquisition of land for the employment of the patients. But every department and detail of asylum administration received their attention, and with quiet but unceasing persistence they urged the importance of such matters as the abolition of mechanical restraint and of enclosed airing-courts, substitution of wooden for flagged floors, enlarging of windows, improvement of dietary and of the service of meals, industrial employment and healthy amusement to fill the vacant hours of the unhappy insane. With the support and co-operation of able and progressive medical superintendents all over the country success came, slowly but surely; and if the present-day asylums are marked, on the whole, by a degree of comfort and even cheerfulness, a comparative absence of irksome restraint, and a humanity and civilisation which were by no means their characteristic in former years, it may safely be asserted that no small part of the credit is due to the efforts of, and the encouragement given by, Dr. Courtenay and Sir George O'Farrell. To attempt to separate the work of these colleagues and friends would be as impossible as it would be ungracious, but none can doubt the value of the contribution of expert knowledge and practical experience brought by Dr. Courtenay. Yet, practical as he always was, he was no mere administrator, for he had the power of bringing home to asylum officers the essential importance both of the medical and of the personal aspects of treatment; while in his self-forgetting devotion to the cause of the helpless class for whom his life was spent he afforded a personal example of the spirit in which the treatment of the insane should be approached. At the same time his great common-sense and experience were always at the command of the many who consulted him in difficulties. Notwithstanding failing health in his later years of office he never spared himself, and even after his retirement he was eager to help the good cause in any way in his power.

On his retirement in 1911, the whole asylum service of the country joined in presenting him with an address expressing their regret at his retirement and their good wishes for his future, accompanied by a valuable presentation, and in concluding the touching and evidently heartfelt speech in which he returned thanks he said no more than the truth in stating that he could look on each one of them, not merely as a co-worker in the past, but as a personal friend for the remainder of his days.

The almost sudden death of Sir George O'Farrell in June, 1911, shortly after retirement, was a severe blow to Dr. Courtenay, and his health, never robust, and for some years very precarious, gave great anxiety to his friends during that summer. Subsequently it improved, however, and he passed a contented and

happy time in the society of his wife and daughters, visited by his friends, and occupied in his garden and amongst the beautiful and rare orchids which were his great source of relaxation. As Lord Chancellor's Consulting Visitor in Lunacy, and as a member of the Medico-Psychological Association, he was still able to do some work for the class whose welfare he had so at heart, until early in December an operation became immediately necessary. It was successful, but while recovering from the results pneumonia developed, and his vital forces being unequal to this added strain, his useful life came to a close.

No notice of Dr. Courtenay would be complete which failed to touch on his personal character. To quote the words of an old friend and colleague, he was "the most genial host; the staunchest friend; broad-minded and generous in his views; strong in his matured opinion, and tolerant of those not in agreement with him—absolutely devoid of 'fads.'" He leaves behind him a memory which will be long in fading.

#### CORRESPONDENCE.

*To the Editor of the Journal of Mental Science.*

SIRS,—I am sorry that Mr. Baillie should think me uncivil. I have read my reply again, and find in it a good deal of banter that is meant, at any rate, to be good-humoured, but nothing that seems to me uncivil. If his feelings are hurt, however, I freely apologise. At the same time I must point out that he does not meet my demand for particulars of my offences, and I am entitled to assume that, when particulars are refused, the only valid reason is that they cannot be given.

I am, Sirs,

Your obedient servant,

MOORCROFT,

PARKSTONE,

DORSET;

November 21st, 1912.

CHAS. MERCIER.

#### LIBRARY OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Library is open daily for reading, and for the purpose of borrowing books. Books may also be borrowed by post, provided that at the time of application threepence in stamps is forwarded to defray the cost of postage. Arrangements have been made with Messrs. Lewis to enable the Association to obtain books from the lending library belonging to that firm should any desired book not be in the Association's Library.

All the book-cases in the Library have now been provided with glass doors, and the upper cupboards in the new room recently acquired by the Association have been similarly equipped.

The Library subscribes to the following foreign journals: *Journal of Abnormal Psychology*, *Journal of Nervous and Mental Diseases*, *American Journal of Insanity*, *Journal de Psychologie normale et pathologique*, *Zeitschrift f. d. gesamt. Neurol. u. Psychiat.*

Members are reminded that they are entitled to receive any of these journals by post, in accordance with the Library Committee's scheme of distribution. Members wishing to avail themselves of this scheme should communicate with the Secretary, specifying the journal or journals which they require.

Application for books should be addressed to the Resident Librarian, Medico-Psychological Association, 11, Chandos Street, Cavendish Square, W. Other communications should be addressed to the undersigned at Northumberland House, Green Lanes, Finsbury Park, London, N.

BERNARD HART.

*Hon. Secretary, Library Committee.*

## SEVENTEENTH INTERNATIONAL CONGRESS OF MEDICINE.

LONDON: AUGUST 6TH TO 12TH, 1913.

The following Rules of Sections are of interest to the members of the Medico-Psychological Association.

## RULES OF SECTIONS.

Art. 10.—*Independent Papers.*—The afternoon Sessions will be devoted to the reading and discussion of independent papers. The titles of such papers should be announced to the Central Office of the Congress by April 30th, 1913. The Council of the Section has the right of selection from among the papers offered, and of declining any that they do not consider desirable. The Council of the Section will arrange the order in which the selected papers shall be read. Any papers offered after April 30th, 1913, will only be placed upon the agenda after the discussion of those which have been announced before this date and have been chosen by the Council of the Section. No paper will be accepted unless the text has been received by the Secretaries of the Section before July 1st, 1913.

A maximum of fifteen minutes will be allowed for the reading of a paper, and five minutes for each speaker who takes part in the discussion. The author of the paper will be allowed five minutes for a reply.

Art. 11.—*Language.*—Reports and independent papers may be written in English, French, German or Italian. Speakers may avail themselves of other languages, but only if one of the members present translates into one of the above four languages the sense of the speech.

## NOTICES BY THE REGISTRAR.

## CERTIFICATE IN PSYCHOLOGICAL MEDICINE.

The following candidates gained this certificate at the examination held in July, 1912:

Drs. F. W. Aphorpe, William Boyd, W. D. Chambers, E. M. Johnstone, W. Brooks Keith, N. C. V. Lothian, G. E. Peachell, J. R. P. Phillips, M. P. Scanlon, and T. Waddelow Smith.

The Gaskell Prize was awarded to Dr. William Boyd.

## EXAMINATION FOR THE CERTIFICATE IN PSYCHOLOGICAL MEDICINE.

## Questions:

1. Describe the histological changes in the various structures of the cerebral cortex in general paralysis of the insane, and discuss their causation.
2. Discuss the significance of hallucination of hearing in mental disorder.
3. Enumerate the various methods that may be adopted in feeding patients who persistently refuse food. Discuss their relative merits.
4. Describe briefly the clinical features of a typical attack of mental disorder occurring during (i) pregnancy, (ii) the puerperium, and (iii) lactation, and indicate the appropriate treatment in each case.
5. State briefly the causation, symptoms, treatment, differential diagnosis and pathology of acute delirious mania.
6. Discuss briefly the relationships of phthisis to insanity.

## NOTICES OF MEETINGS.

*Quarterly Meeting.*—The next meeting will be held on Thursday, February 20th, 1913.

*South-Eastern Division.*—The Spring Meeting will be held on Tuesday, April 29th, 1913.

*South-Western Division.*—The Spring Meeting will be held on Friday, April 18th, 1913.

*Northern and Midland Division.*—The Spring Meeting will be held on Thursday, April 24th, 1913.

*Scottish Division.*—The Spring Meeting will be held on Friday, March 21st, 1913.

*Irish Division.*—The Spring Meeting will be held on Thursday, April 17th, 1913.

#### APPOINTMENTS.

Connolly, V. L., M.B., B.Ch., Sixth Assistant Medical Officer of the Colney Hatch Asylum, *vice* H. C. Waldo, M.R.C.S., L.R.C.P., resigned.

Connolly, W. J., M.B.Sydney, Junior Assistant Medical Officer, Lunacy Department, New South Wales.

Cowen, T. P., M.D.Lond., Medical Superintendent of the Rainhill Asylum, Lancashire.

Cribb, H. G., M.R.C.S., L.R.C.P., Medical Superintendent of the Sedgfield Asylum, Co. Durham.

Ferguson, E. W., M.B., Ch.M.Sydney, Assistant Medical Officer to the Lunacy Department, New South Wales.

Davidson, Andrew, M.D., M.S.Aberd., Official Visitor to the Hospitals for the Insane at Callan Park and Gladesville and the Licensed House for the Insane, Cook's River, New South Wales, *vice* James C. Cox.

Graham, G. M., M.B., Ch.B.Edin., Junior Assistant Medical Officer to Stirling District Asylum, Larbert.

Hollow, J. T., M.B., Medical Superintendent at the Hospital for Insane, Beechworth, Victoria, *vice* O. W. Philpott, M.D.

Jeffrey, George R., M.D., F.R.C.P.Edin., F.R.S.Edin., Physician-Superintendent, Bootham Park Private Mental Hospital, York.

Lee, D. Chisholm, M.B.Edin., Assistant Medical Officer to the Warneford Mental Hospital, Oxford.

Macpherson, D. A., M.R.C.P. and S.Edin., Fifth Assistant Medical Officer of the Long Grove Asylum of the London County Council.

Moyes, John Murray, M.B., Ch.B.Edin., D.P.M.Leeds, Second Assistant Physician, Crichton Royal, Dumfries.

Philpott, A. W., M.D., Medical Superintendent at the Hospital for Insane, Ararat, *vice* Dr. Mullen.

Plummer, E. Curnow, M.R.C.S.Eng., L.R.C.P.Lond., Medical Superintendent and Resident Licensee of Laverstock House, Salisbury.

Tisdall, Charles J., M.B., Ch.B.Edin., Third Assistant Physician, Crichton Royal, Dumfries.

Wills, H. W., M.B., B.Sc.Lond., Sixth Assistant Medical Officer of the Long Grove Asylum of the London County Council.



# THE JOURNAL OF MENTAL SCIENCE

[Published by Authority of the Medico-Psychological Association  
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No. 245 [NEW SERIES  
No. 209.]

APRIL, 1913.

VOL. LIX.

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## Part I.—Original Articles.

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*The Morison Lectures, 1913.—General Paralysis of the Insane.* By GEORGE M. ROBERTSON, M.B., F.R.C.P.E., Physician-Superintendent, Royal Asylum, Morningside, and Lecturer on Mental Diseases, University of Edinburgh.

### THE EARLY DIAGNOSIS OF GENERAL PARALYSIS.

GENERAL paralysis is common in our large cities, and assumes so many disguises that it is necessary to be ever on the alert for it. About a third of the male admissions to asylums between the ages of thirty-five and fifty suffer from it, and the possibility of its presence should always be remembered in the case of a man of this age presenting mental symptoms. Such men are usually the heads of families, and occupy positions of responsibility, for as a rule those who suffer from general paralysis are no weaklings. The social troubles and inconvenience produced by the occurrence of adolescent or senile insanity, bad as they may seem, are therefore trivial compared with those produced by a disease such as this, which attacks the bread-winner of a family and the head of a business in the prime of his life.

A feature of general paralysis which adds to the anxiety of relatives is the alteration of character without any obvious sign

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13



of insanity, which is often one of its early symptoms. A man whose sanity is not yet questioned scandalises his neighbours and ruins his good name by his conduct in public places, or he dissipates his means and brings his family to want by senseless extravagance or by muddling his affairs.

Nothing more need be said to indicate the value of an early diagnosis of this disease, yet it often goes undiagnosed. Till within the last five years the diagnosis, even when well-marked symptoms were present, was not infrequently in error, and in the early stage of the disease suspicion may have been justified, but a definite diagnosis never was. The anxiety produced by this uncertainty was often very trying, and when important matters are at stake it has been found so intolerable that the skull has been trephined and a small portion of the cortex removed and examined microscopically to settle the question one way or another.

#### *Uncertainty of Diagnosis.*

This uncertainty of diagnosis was well illustrated by the fifty-four cases upon which Wassermann and Plaut first started their syphilitic investigations, when the one thing they desired was clinically certain material from the institutions of Berlin and Munich. They were informed that "no doubt of the diagnosis of paresis could exist," for the cerebro-spinal fluid came from cases almost all of which were in the "undoubted advanced" stage of the disease, or were "ordinary straightforward cases" of "clinically undoubted" general paralysis. In spite of every precaution three cases of mistaken diagnosis were found after death in the fifty-four cases, an error of nearly 6 *per cent.*

A most instructive investigation into this subject was made a few years ago in America by Southard. He followed to the *post-mortem* room and the laboratory forty-one well-marked cases in which the entire medical staff of an asylum had unanimously agreed on clinical grounds that the diagnosis of general paralysis was certain. He found on examination after death that there were six errors of diagnosis in the forty-one cases, or 15 *per cent.* From my own experience I am certain that this is not an over-estimation, and if an attempt were made to diagnose not merely well-marked but also early cases, and those

showing slight clinical phenomena, the error would be much greater.

Caution was recommended by the most experienced physicians of the past, who pointed out that as the diagnosis of general paralysis was tantamount to passing sentence of death on the patient, every other possibility should be excluded before coming to this conclusion. Much likewise required to be excluded, for there were at least ten other conditions from which a differential diagnosis might have to be made. These included alcoholic and syphilitic insanity, senile insanity, and organic brain disease with paralysis, traumatic insanity, certain toxic conditions and neurasthenic states, epilepsy, mania, and imbecility. It was often impossible to arrive at a definite diagnosis, and this was especially the case with certain forms of alcoholic insanity resembling the confusional psychoses of Korsakoff. A provisional diagnosis only could be made, and the course of the disease watched, for any other policy sooner or later led to most regrettable mistakes. In cases of organic brain disease with paresis similar mistakes were also liable to occur. Neurasthenic states in middle-aged men who had been exposed to infection from syphilis often gave great anxiety, and in doubtful senile cases above sixty-four, owing to difficulties and uncertainties, a diagnosis of general paralysis was seldom made.

#### *New Methods of Diagnosis.*

The methods of investigating general paralysis have now been revolutionised, and its diagnosis has been placed on a sure basis by the six new serum and spinal fluid reactions and tests. The method of diagnosing it now consists of two processes which are complementary. There is first the *clinical process* in which the patient is examined by the usual methods employed in psychology and neurology. If, as a result of this examination, the presence of general paralysis be suspected, it is then necessary to apply the second or *laboratory process* to verify this first impression. The employment of the latter resembles chemical analysis in the method of its application and in the certitude of its results. By obtaining certain definite reactions in sequence and noting the presence of certain positive signs in association with the clinical symptoms, an accurate diagnosis

can almost always be made. There are only two conditions in which there is any uncertainty with regard to the presence of general paralysis, namely, when mental symptoms exist in association with its twin sister, tabes, or its first cousin, cerebro-spinal syphilis.

It is not my intention to give a description of the classical symptoms of general paralysis, as these can be found in any text-book. My object is rather to arouse suspicion of the presence of the disease at an early stage by drawing attention to those symptoms, often not serious in themselves, which appear early. In the past such suspicions would have been futile had they arisen, for nothing further could have been done to complete the diagnosis but to await developments. Now we can apply the laboratory tests referred to, and in almost every case say definitely and at once whether general paralysis be present or not.

### *Mental Symptoms.*

The fundamental symptom of general paralysis is enfeeblement of function. There is a steady process of deterioration going on, producing first impairment and finally destruction or paralysis of the mind, known as dementia. Weakness of judgment, loss of memory, and a blunting of the sensibilities are present in one shape or another in every case, and these are the characteristic symptoms. In the early stages the patient is not insane: he is merely a changed man. There is an alteration in his intelligence, character, habits, and feelings, and this change is for the worse. He may continue to do his work, though in a more mechanical and less efficient way than before, and it costs him a greater effort. Forgetfulness is usually a noticeable symptom, and failure of memory may lead to unexpected mistakes in spelling and calculation, but there are also more serious lapses when important matters are forgotten. Lifelong habits of courtesy, of decent behaviour, and of personal honour may be departed from, and in their place there may arise a tendency to alcoholism, immorality, or even criminal acts, such as absurd theft. Moodiness and irritability may develop, or else apathy and indifference. It is said that 12 *per cent.* of the cases are conscious of these defects, but it is probable that at this early stage the percentage is really very much higher.

*Deterioration of Conduct.*

It is only possible to illustrate this mental change by a few concrete examples. The weakened judgment, which, with failure of memory, is the most characteristic early symptom of general paralysis, is best shown by the conduct. The experienced man of business makes foolish investments for which no tyro could be excused; the careful man makes numerous purchases of useless articles, or presents gifts which he cannot afford to strangers; the clerk's book-keeping is muddled, and his ledgers are full of errors and miscalculations; the considerate parent will grab the food on the table and eat to excess, regardless of his family; the working man's wife will meet her husband with a smiling face, but with no explanation to give why his dinner has not been cooked for him; the particular man neglects his personal cleanliness and dresses carelessly or absurdly; the owner of a motor-car drives so fast that no one will enter his car. He knocks down a child, and not only does not stop to see if she has been injured or not, but does not worry about it. A golfer, playing in a mixed foursome, stands aside from the teeing-ground and urinates openly. Loss of control over the temper in a man not naturally hot-tempered is a frequent symptom. At tennis, billiards, or cards, unless he wins, he is unbearable, and makes unpleasant scenes. He will not scruple to take a mean advantage at these games, or even to cheat. All these symptoms can be traced to a loss of the better judgment, of the finer feelings, and of memory, and, though they do not amount to actual insanity, they nevertheless indicate a serious deterioration of intelligence and character from the normal, which, if associated with any of the physical signs of general paralysis, should not be overlooked.

These occasional mental failings may exhibit themselves for a period of a year or more before serious and continuous signs of mental disorder become superadded. Sooner or later a state of confusion, depression, excitement, or only hypochondriacal neurasthenia develops, and the patient is recognised to be mentally affected. Not infrequently the presence of general paralysis is unsuspected at first, especially if the patient be melancholic, which he is more frequently than is thought. These superadded phenomena mask the fundamental symptoms of deterioration to which I have alluded, but the expert, especially if he has had

his suspicions awakened by pupillary anomaly or by a knowledge that the patient has had syphilis, can usually detect them. There is often, but not always, something atypical in the mental disorder. The paralytic melancholic may thus take his food ravenously, or may sleep soundly, or may make silly remarks, or show great loss of memory, none of which are features of typical melancholia.

### *Physical Signs.*

There are mental symptoms so typical and characteristic of general paralysis, like the absurd and grandiose delusions of the second stage, that they at once suggest that disease. Those I have just described may be due to other causes, and they only suggest general paralysis if they are associated with the physical signs of that disease. It is this combination of mental symptoms with physical signs which is so ominous and important. As general paralysis may attack any part of the nervous system, any physical sign or symptom known to neurology may be present, but the disease shows a selective power, and certain symptoms are more common than others. Generally speaking, it may be said that these early physical signs are those which are also found in tabes, but any neurological sign such as a convulsive seizure, a temporary aphasia, or an attack of unconsciousness may give warning of the onset of the disease.

### *The Pupil.*

The pupils in general paralysis are usually unequal, but unless very marked this sign is of no diagnostic value, owing to its prevalence. The outline is frequently uneven or irregular, and if markedly so this has more diagnostic value. It may, however, be congenital or be due to syphilitic adhesions, and I have seen extreme temporary irregularity of both pupils due to toxic conditions.

### *The Argyll-Robertson Phenomenon.*

The most important diagnostic sign is the fully developed Argyll-Robertson phenomenon, or complete loss of the light reaction in one or both eyes. This symptom is regarded by Babinski and Gowers as a definite sign of antecedent syphilis

and as a warning of the danger of tabes or general paralysis. It may occur in rare organic lesions, but these are not likely to be confused with either of those diseases. It is a most valuable phenomenon, due to the selective action of a particular toxin on certain nerve-cells and fibres, the exact position of which is still a matter of doubt. It is not always due to actual degeneration, as the phenomenon may come and go from time to time.

It has an early or incomplete stage, as Argyll Robertson pointed out in his original paper in 1869, in which the light reaction is not abolished but is only delayed or sluggish. Thus in a patient when first diagnosed to be suffering from general paralysis a sluggish reaction of the pupils was obtained, while later on, as the attack culminated, the reaction became totally abolished, the change taking place during the course of one night. As the acute symptoms passed off six weeks afterwards the reaction returned, but was still sluggish. The reaction may be present in one eye only, or be in the early or incomplete stage in one eye and in the advanced or complete stage in the other. It is not difficult to distinguish this sluggish reaction from the normal, as the necessary skill is soon acquired after seeing a few cases, especially if a case be studied in which there is one normal eye for the purpose of comparison. The normal contraction is stated to last about one-fifth of a second, and the sluggish reaction probably lasts twice as long. While the complete Argyll-Robertson phenomenon is almost always a post-syphilitic sign, sluggish reaction of the pupils of a temporary nature is frequently observed in alcoholic and other conditions.

### *The Indirect Light Reflex.*

The light reflex should be tested with different degrees of illumination, and the best results are not got in a bright light. If the pupils be contracted, as sometimes happens in general paralysis, but not so frequently as in tabes, it may be difficult to get satisfactory results under any conditions. The most delicate method of testing for the presence of the Argyll-Robertson phenomenon is the test for the indirect or consensual light reflex. This is performed by fixing open the lid of one eye with the thumb and watching the pupil of that eye attentively, while with the other hand the other eye is alternately opened and closed. This method of examination possesses two

advantages—it enables the pupil to be very closely and continuously observed without any interruption from the process of alternate illumination and shade, so that the quickest and slightest movement cannot possibly escape detection ; it also applies a feebler light stimulus for the purpose of eliciting the reflex than the direct method, especially if with the latter both eyes have been illuminated, and failure is therefore more likely to occur if the pathway be obstructed. The afferent fibres in the optic nerves conveying the light stimulus decussate in the chiasma in the same way as the visual fibres. They possibly do not decussate equally (Oppenheim), the smaller bundle crossing over, for if a bright light be made to shine in one eye it will often cause a greater direct contraction of that eye than a consensual contraction of the other. Unequal intensity of the stimulus is undoubtedly an important factor in the production of the Argyll-Robertson phenomenon, for the greater intensity of the stimulus which actuates the accommodation reflex is the explanation which is usually offered for the retention of the accommodation reflex, while the light reflex is lost. A sluggish contraction may thus be obtained by the indirect method of testing in the earliest stage of the Argyll-Robertson phenomenon, while the reaction still appears to be normal by the method of direct illumination whatever the explanation may be.

According to these views there are three stages of the Argyll-Robertson phenomenon or loss of the light reflex :

- (1) A normal direct reflex and a sluggish indirect reflex.
- (2) A sluggish direct reflex with a more sluggish or absent indirect reflex.
- (3) Abolished direct and indirect light reflexes.

Sluggish light reflexes are far more commonly met in the early stage of general paralysis than the complete Argyll-Robertson phenomenon, but the latter may precede the development of general paralysis by many years, although this experience is not so common as in the case of tabes. A sluggish or abolished light reflex is present in 70 *per cent.* of the cases of general paralysis (Franz). They are therefore signs of primary importance on account of their frequency alone, and in their absence a diagnosis must be made with caution.

Bevan Lewis records the opinion that the loss of the sensory reflex, a dilatation produced by pain as from the prick of a pin

near the eye, is the earliest pupillary symptom in general paralysis. This reaction varies in normal persons, and the application of the test is more open to error than that of the indirect light reflex.

### *The Knee-Jerks.*

In 75 *per cent.* of the cases of general paralysis the knee-jerks are either exaggerated or else sluggish or absent (Franz). These two abnormal reactions do not have the same diagnostic value, for exaggeration, unless very marked, occurs in so many nervous conditions that it does not point specially to general paralysis. It is different, however, with the sluggish or abolished reaction, which occurs in over a fourth (28 *per cent.*) of the cases of general paralysis. It is very significant of that disease or tabes, and like the incomplete Argyll-Robertson phenomenon it is often an early symptom.

The examination must be carefully made, and the attention of the patient should be distracted by directing him to look upwards at some object and by asking him a question, such as his age. The leg should be in a favourable position, with the foot on the ground, the knee flexed at a slightly obtuse angle, and a proper percussion hammer employed to strike the blow.

### *Comparison of Jerks.*

Valuable information can be gained by comparing the reactions, and in an early stage the one knee-jerk can be compared with the other, for only one may be found to be sluggish. At other times the knee-jerks may be compared with those obtained in the arms. Thus in one case my suspicions were aroused by eliciting an active radial jerk by percussing the end of the radius, while the knee-jerks were very poor. In all cases of sluggish knee-jerks the Achilles tendon should also be tested, and this can be very easily and conveniently done by asking the patient to kneel on a chair with one leg at a time, facing the back. It is sometimes found in these cases that the Achilles jerk is already absent, for it tends to disappear sooner than the knee-jerk. The longer the nerve-fibre the more vulnerable apparently is the neurone to degeneration, hence these abnormalities appear earlier at the ankle than they do at the knee, and at the knee earlier than at the elbow. The examination of the Achilles jerk should therefore be a routine procedure.



*The Speech and the Writing.*

Both the speech and the writing are affected in general paralysis, but the latter is not of much diagnostic value as an early sign for many reasons. The standard of caligraphy varies greatly—even well-educated people may write badly—and much depends on the pen or on the environment at the moment. As a practical test it fails on the one hand because of nervousness, and on the other because by taking more time and care a patient suffering from early general paralysis may turn out better writing than his normal or average. These variations in writing can be studied by comparing the carefully written address on the envelope with the less careful writing in the letter itself, and the beginning of a letter with the signature at its end.

The disorders of speech are more important, and they can be more accurately tested by asking the patient to repeat words or phrases more and more quickly. Every person attains to a practical efficiency of articulation, but it is possible by combining syllables together which are awkward to pronounce, and by urging him to speak faster and faster, to reach a stage when blunders will necessarily occur with all. In testing the articulation in general paralysis this must be remembered, and the tests should not be made too severe, or they fail in their object. The pronunciation of the labials and the linguals should be separately tested, as in the early stages the defect is usually limited to one or other. For the labials the words "Hippopotamus" "Hopping Hippopotamus" repeated three times quickly are sufficiently discriminating, and for the linguals "British Constitution" or "Third Territorial Artillery" will serve.

In making these tests the examiner should repeat the form of words at the same pace as he demands from the patient. He must remember that in states of exhaustion and neurasthenia defects of speech may be elicited, that dental plates or missing teeth and parched lips or tongue are a handicap to articulation, and that this function may be affected by nervousness.

In the early stages of general paralysis the errors that may occur are of two kinds, either a stumbling and stopping at a letter, or a missing and passing over of a letter. By the first blunder a syllable may be repeated once or twice, as, for example,

"Hip-pip-pip Potamus," and by the second the syllables are slurred or run together, as, for example, "Bri'sh Const'ution." In other cases the speech is only less facile and slower. At this stage the high-pitched and tremulous intoning speech has not yet developed.

### *Facial Expression.*

When the patient speaks tremor of the lips may be noticed, but this may be only emotional in origin. Tremor of the tongue may also be present, but this symptom occurs in so many nervous and toxic conditions that it is not of much diagnostic value. Of more value is the expression of the face, which is often heavy, immobile, or mask-like at a comparatively early stage. The natural and ceaseless play of the muscles of expression, which accurately reflect every variation and phase of mental feeling, is lost or much diminished, a condition termed "amimia." This stiff and expressionless look, of the lower part of the face chiefly, is often associated with labial defects of the articulation.

### *Laboratory Methods.*

If some, but not necessarily all, of these physical signs relating to the expression, articulation, knee-jerks, or pupils—and of these the last are the most important—be found associated with mental symptoms indicating deterioration, such as failure of memory, impairment of judgment and moral laxity, and especially if these occur in a man of middle age who has had syphilis about ten years previously, then general paralysis should be suspected. The case should now be submitted to laboratory methods for the application of the six new serum and cerebro-spinal fluid tests, in order that the diagnosis may be confirmed and certainly attained. In the first place 5 c.c. of blood drawn off by venepuncture should be sent to a thoroughly reliable serologist to test for the Wassermann reaction.

### *A Negative Wassermann Reaction in the Serum.*

If the Wassermann reaction in the blood-serum be found to be negative, general paralysis can be almost certainly excluded, for in experienced hands a positive reaction is obtained in 99

*per cent.* of the cases of general paralysis. In those cases in which the clinical symptoms are few and indefinite, and mere suspicion of general paralysis existed, this negative result is sufficient to allay suspicions, and further examination need not be made.

*Negative Reactions in Serum and Spinal Fluid.*

In those cases, however, in which the clinical symptoms are numerous or fairly typical of general paralysis, lumbar puncture should next be performed, and 5 c.c. of spinal fluid withdrawn. If the Wassermann reaction be negative in the spinal fluid as well as in the blood-serum, then general paralysis may now, with almost absolute certainty, be excluded in spite of the clinical symptoms. One of my cases of stationary but undoubted general paralysis, which had lasted twelve years, gave, however, a double negative Wassermann reaction.

*A Positive Reaction in the Serum and a Negative in the Spinal Fluid.*

In those cases in which a positive reaction has been found in the blood, proof of latent syphilis has been obtained, and lumbar puncture must always be performed. If the reaction in the spinal fluid be then found to be negative, the case is one of mental symptoms in a person who has had syphilis, but whether these symptoms be due to cerebral syphilis or not can only be decided by a clinical study of the case. In 6 *per cent.* of the cases, however, a negative reaction has also been obtained in the spinal fluid in general paralysis, so the other tests should be applied and further close study of the clinical symptoms made to exclude it.

*Positive Reactions in Serum and Spinal Fluid.*

If the reaction in the spinal fluid as well as in the blood be positive, then the case is either one of general paralysis, or of tabes with mental symptoms, or of syphilis of the nervous system with mental symptoms, or of any two or all of these three conditions in combination. By far the most probable diagnosis, however, is general paralysis, for while the positive reaction in the cerebro-spinal fluid is obtained in 94 *per cent.* of

all cases of general paralysis, it is obtained in 53 *per cent.* of tabes (Bayly) and in only 17 to 50 *per cent.* of syphilis of the nervous system (Bayly, Henderson).

*A Negative Reaction in the Serum and a Positive in Spinal Fluid.*

Whether the reaction in the serum be positive or negative does not matter if a positive reaction has been obtained in the spinal fluid. The latter is the paramount sign, and even alone definitely indicates an involvement of the nervous system by one or more of the three diseases mentioned. The greatest use of the blood test is not to give confirmatory evidence, but to avert the necessity of lumbar puncture in those cases in which the blood is found to have a negative reaction. It has, however, already been stated that a negative reaction is obtained in the blood-serum in 1 *per cent.* of cases of general paralysis, with (and in one very chronic case without) a positive reaction in the cerebro-spinal fluid.

*Lymphocytosis.*

The cytological examination of the spinal fluid must next be made, and if a lymphocytosis be present in association with a positive Wassermann reaction of the fluid, it confirms the previous diagnosis that the nervous system is involved by one of the three diseases mentioned. If a definite lymphocytosis be absent it does not negative the presence of general paralysis, as it is known to be absent in 10 *per cent.* of the cases; moreover, the absence of lymphocytosis is against the diagnosis of cerebro-spinal syphilis.

If the Wassermann reaction in the spinal fluid has been negative, but in the blood positive, and a lymphocytosis is found, this combination usually points to syphilis of the nervous system, but it may occur in 6 *per cent.* of cases of general paralysis, and the differential diagnosis of these two conditions in this percentage of cases must be made on clinical evidence.

*Presence of Globulin, Albumin, and Plasma-Cells.*

The three minor tests are the excess of globulin demonstrated by means of a saturated solution of ammonium sulphate (the

Ross-Jones test), the presence of over 0.1 *per cent.* of albumen tested by Aufrecht's albuminimeter, and the presence of plasma-cells in the cell-count. These tests confirm the results of the three major tests, or in the absence of these confirm a provisional diagnosis of general paralysis made on the strength of the clinical symptoms.

### *Summary.*

By means of the positive Wassermann reaction of the cerebro-spinal fluid general paralysis can be differentiated from every other condition which simulates it but tabes and syphilis of the nervous system, and the other five tests assist very little in the differential diagnosis of these three conditions, which must be made on clinical grounds. The necessity for the exact study of the clinical symptoms of these diseases is now not less but more necessary than ever, and a short account is therefore added of the chief diagnostic features of tabes and cerebral syphilis with mental symptoms.

### *Tabes with Mental Symptoms.*

According to Dr. Byrom Bramwell's statistics, 11.4 *per cent.* of tabetics pass into general paralysis, and it is computed that at least one-third of the cases of general paralysis present tabetic signs. Excluding these cases of tabo-paralysis it is found that persons suffering from pure tabes seldom present mental symptoms, and it is notorious that many intellectual and distinguished men have been afflicted with this disease.

If tabes occurs in a member of a neurotic family the patient will be subject to the same neuroses and psychoses as his relatives, and if he be alcoholic to alcoholic insanity. In such cases neurasthenia is common and gives rise to some anxiety, as it is difficult to differentiate it from the early neurasthenia of general paralysis. Certain forms of alcoholic insanity may also cause anxiety by simulating general paralysis, but they may also mask its development.

There are, however, three types of mental disorder which seem to be specially associated with tabes :

(1) An insanity of persecution, with more or less systematised delusions and irritability.

(2) A mild melancholia, with hypochondriacal fancies and some enfeeblement. The delusions in these two types are possibly founded on the lightning pains.

(3) Lastly, in some old-standing cases a mild degree of dementia may develop, associated with an emotional condition of either indifference or optimism. In some of these cases the lesions of general paralysis have been found in the brain, but in others, including two cases examined by Alzheimer, they were not found.

The appearance of mental troubles in a tabetic ought always to awaken the suspicion of general paralysis, especially if accompanied by signs of confusion, of mental weakness, and of loss of memory, and in which the deterioration is progressive. The development of speech difficulties and of a heavy, mask-like expression of the types characteristic of general paralysis are ominous physical signs. It is believed that the tendency to pass into general paralysis is greater in the early years of *tabes* than after the disease has existed many years.

With regard to the Wassermann reaction and the other reactions and signs, while these may be exactly the same as those obtained in general paralysis, they are not nearly so constant. The Wassermann reaction is obtained in the serum in about 60 *per cent.* of the cases, and in the cerebro-spinal fluid in about 50 *per cent.* (Bayly). These low percentages as compared with the 99 and 94 *per cent.* in general paralysis probably indicate that the disease is not so extensive nor so active. I also express the opinion with some diffidence that in a considerable proportion of mild cases the activity of the disease process diminishes, and may cease altogether. I would thus account for the existence during a life-time of solitary symptoms like optic atrophy, the Argyll-Robertson phenomenon, or the loss of the knee-jerks, and for those stationary cases which give a double negative Wassermann reaction. The continuation of the pains and other symptoms in these cases is possibly not due to any active disease, but to the organic changes which have already taken place. Treatment also, while not influencing the organic changes, has, according to Boas, a definite effect on the Wassermann reaction in rendering it negative in about one-half of the cases, and very often in the early stages the symptoms are ameliorated. In the nature of its response to treatment by salvarsan, *tabes* occupies an

interesting position midway between general paralysis and cerebro-spinal syphilis.

*Cerebro-spinal Syphilis with Mental Symptoms.*

Cerebral syphilis with mental symptoms may simulate general paralysis so closely as to make the differential diagnosis an impossibility during life. The nine errors of diagnosis in Plaut's and Southard's ninety-five cases were chiefly due to this cause, which includes gumma, meningitis, and endarteritis, both of the large arteries and the terminal vessels, the so-called Heubner's and Nissl's types. There is little doubt also that most of the supposed recoveries from general paralysis have been cases of cerebral syphilis. On the other hand, general paralysis may be complicated by the presence of focal lesions, which may simulate those of cerebral syphilis. The distinctive lesions of the two conditions have also been found combined after death, and a number of cases have been reported in which the patient first presented symptoms of cerebral syphilis, and subsequently developed general paralysis.

The mental symptoms do not help materially in distinguishing certain cases of cerebral syphilis from general paralysis, and more reliance must be placed on the physical signs. These are more definitely localised in cerebral syphilis, and less diffused or general. They usually appear more suddenly, and are more permanent than similar signs in general paralysis. The speech defects have not the distinctive character of the articulation in general paralysis, and are more often associated with ordinary aphasia. The Argyll-Robertson phenomenon is not usually present in cerebral syphilis, whereas ocular paralyses occur earlier and are more frequent. The extensor reflex of the great toe is rarely present in general paralysis unless it is complicated by a focal lesion.

The history of the attack of syphilis in cerebral syphilis often shows it to have been a severe one, which is unusual in general paralysis. It usually develops much sooner after the infection, and may co-exist with other tertiary or even secondary manifestations. Of 228 cases of syphilitic hemiplegia Fournier found that nearly 40 *per cent.* (39·4) occurred before the end of the third year, while of 112 cases of general paralysis only one occurred during that period and only 4 *per cent.* before the

sixth year, the majority occurring between the eighth and twelfth years. Many persons suffering from cerebral syphilis, owing to its early development, are under thirty years of age, whereas few general paralytics are, unless those who suffer from congenital syphilis. Lastly, the effect of anti-syphilitic treatment is usually beneficial to the symptoms of cerebral syphilis, but not so to those of general paralysis.

In cerebral syphilis it is usual to find a positive Wassermann reaction in the blood, a negative reaction in the cerebro-spinal fluid, a very high lymphocytosis and a moderate excess of globulin. In a number of cases, varying from 17 to 50 *per cent.* (Bayly, D. K. Henderson), a positive reaction is also obtained in the cerebro-spinal fluid. The reaction is most frequently obtained in recent cases, while in old-standing cases it may disappear not only from the cerebro-spinal fluid but from the serum as well, the active disease having apparently become extinct. These reactions and signs are influenced so greatly by treatment, in contrast to what obtains in general paralysis, that this forms perhaps the most reliable diagnostic test of cerebral syphilis. The excess of globulin quickly disappears, the high cell-count falls to a little above normal, and the positive Wassermann reaction usually disappears, first from the spinal fluid and then from the serum. In cerebral syphilis the power of the spinal fluid to reduce Fehling's solution, which is present normally and in general paralysis, may be lost, but it returns under treatment (Kaplan, *Am. Journ. of Insanity*, vol. lxi.)

#### *General Paralysis without Clinical Symptoms.*

So far I have only considered the new reactions and signs as evidence which confirmed that of the clinical symptoms, and therefore as a subsidiary element in the diagnosis of general paralysis. Are they not the most important element, and would we not be justified in diagnosing the disease from their presence alone? They are present at a very early stage, exactly how early no one yet knows, and it is quite possible these reactions and signs may exist before there are noticeable clinical symptoms. There is nothing impracticable in their discovery under these circumstances, for everyone who is now infected with syphilis ought to have his blood examined for the Wassermann reaction, and if this be persistently positive, his



cerebro-spinal fluid should be examined too. If such a patient's blood and cerebro-spinal fluid gave a double positive Wassermann reaction, associated with lymphocytosis, plasma-cells, albumen, and an increase of globulin, it would scarcely be possible, in my opinion, to avoid the diagnosis of general paralysis or tabes, even in the absence of any definite psychological or neurological symptom. The subsequent development in such a case of mental and nervous symptoms would be conclusive, and would confirm the diagnosis of general paralysis. It would be a very satisfactory result of the progress made in medicine if one could make such an early diagnosis before any symptoms of degeneration could be observed, and it might yet prove invaluable as regards treatment.

It is possible that in the future transient mental episodes and neurological phenomena, resulting from latent syphilis, may be noted, which may bear some relationship to, and occupy some intermediate position to, general paralysis, and be of a more benign character. *Formes frustes* may also be discovered, as has usually been the case with other diseases when our knowledge of them has become more accurate, but in the whole field of psychological medicine there is still not a more responsible problem, or one requiring the exercise of more prudence and caution, than the early and definite diagnosis of general paralysis.

#### THE ÆTIOLOGY, PROPHYLAXIS AND TREATMENT OF GENERAL PARALYSIS.

##### *Ætiology.*

It is impossible to discuss the prophylaxis and treatment of general paralysis without disposing of the vexed question of its ætiology, but the more this is investigated the more is one impressed by the mass of circumstantial evidence in support of the syphilitic hypothesis. A short *résumé* of this will be given.

##### *Relationship to Tabes.*

General paralysis and tabes have the same ætiology, the facts relating to the one running an exactly parallel course to those of the other. Of a whole family infected with syphilis some members may develop one disease and some the other, and of

several men infected from one source the same may be true. Souques reports a family where the father had general paralysis, the mother tabes, and two daughters tabes, and Moenkemöller a converse instance in which the father had tabes, the mother general paralysis, and a daughter general paralysis. Of five glass-blowers mentioned by Brosius who simultaneously contracted chancre of the lip in their occupation, four ultimately suffered from tabes or general paralysis; and of four men infected by one woman, mentioned by Erb, all developed in time either tabes or general paralysis (Mott). The two diseases may develop together or in sequence in the same subject, forming tabo-paralysis. They are similar diseases, differing chiefly in the locality, in the extent, and in the intensity of the disease process, and evidence relating to the ætiology of the one is applicable to the other.

### *History of Syphilitic Infection.*

Of 1,100 male cases of tabes among the better classes Erb found that 89.45 *per cent.* had been infected with definite syphilis, and he wrote that in his opinion general paralysis had the same relationship to syphilis (*Les Affections Parasymphilitiques*). It is difficult to get so high a percentage of syphilitic infection in general paralysis, as, owing to mental enfeeblement and loss of memory, the history supplied by the patient is more often imperfect. The length of time that elapses from the date of the infection, the mildness of the symptoms and the absence of tertiary complications which usually obtain in general paralysis, contribute also to obliterate the facts of infection from the memory. Fournier, nevertheless, gives a list of twenty authorities who have obtained a definite account of previous syphilis in from 66 to 92.8 *per cent.* of their cases. Such statistics vary, for those supplied by private patients of the rich classes give higher results than those of the poor, who are less observant; and men give higher results than women, as infection in the latter is often not noticeable.

Taking the average of the higher statistics as being nearer the truth, for in them a fuller history has probably been obtained, in about 80 *per cent.* of those suffering from general paralysis proof of syphilitic infection exists. Failure to obtain evidence in the remaining 20 *per cent.* is not remarkable under the circum-

stances already mentioned, and when we recall the fact that in the tertiary lesions of undoubted syphilis there is failure to obtain a history of syphilitic infection in a percentage as high. Lang, of Vienna, failed to get a history of infection in 36 *per cent.* of late forms of syphilis (Krafft-Ebing), Pernet failed in 20 *per cent.* of obvious syphilitic skin disease (Mott), and Fournier failed in 15 *per cent.* of cases of gumma of the palate (Ballet).

*Syphilis without Manifestations.*

The Wassermann reaction has thrown a new light on cases of unsuspected, undiagnosed, and unrecovered syphilis which helps us to understand why many cases of general paralysis do not give a history of syphilis. It has taught us that a person may acquire syphilis without showing any symptoms. Colles's law affirms that the mother of a syphilitic child is immune to infection, and the explanation of this fact is simply this—that she has already acquired syphilis. It is found that her blood gives a positive reaction in three cases out of four, although in two thirds of the cases the woman is unconscious of having been infected (Mackintosh and Fildes). It has also taught us that syphilis may persist for many years in the form of latent syphilis without any symptom. The vast majority of the cases of general paralysis suffer in this way, and in them no history can be obtained of any active syphilitic signs or manifestations. The Wassermann reaction has also been of use in clearing up difficulties due to the presence of congenital syphilis without any stigmata or symptoms of syphilis, or even malnutrition or defective development, which we now know is possible. These cases may ultimately suffer from adult general paralysis, and if congenital syphilis be unsuspected and acquired syphilis can be excluded, they present great ætiological difficulties. Percy Smith has described such cases in adult women in whom syphilitic parentage was ultimately traced. An instructive account of two virgin sisters, the victims of congenital syphilis, who died of general paralysis at the ages of forty-two and forty-three, is given by Christian Müller. In these women the stigmata of congenital syphilis were fortunately present and the existence of the disease was recognised, but had they been absent these two cases might very easily have served as conclusive examples of general paralysis without syphilitic infection.

*Varying Incidence of General Paralysis.*

What is quite as impressive as the high percentages of syphilitic infection is the faithful way the incidence of general paralysis varies in localities, professions, sexes and ages in accordance with the estimated variations in the amount of syphilis. It is more prevalent in urban than in rural asylums, and it reaches its maximum in large seaport towns like Leith, and its minimum in districts like the Highlands of Scotland. It is eighteen and a half times more frequent in the Royal Edinburgh than in the Inverness District Asylum among a similar class of patients. Soldiers and sailors are more frequently attacked than the clergy, and men with means leading a fast life in town than wealthy members of the Society of Friends. It accounts for a half to three-quarters of the insanity occurring among German officers. Men are attacked on an average about four times oftener than women; but in the richer classes the proportion may be 10 or even 20 to 1, while in the poor it may be less than 3 to 1, these figures, according to Blaschko, representing the proportion of syphilis in the two sexes (Mott). An exception to the general rule occurs in juvenile and adolescent general paralysis, where the two sexes are attacked in equal numbers, because the incidence of congenital syphilis is naturally equal in the two sexes at birth. It usually develops after an incubation period of eight to twelve years, and it is rare before thirty or after fifty-five, but is common between the ages of forty and forty-five. Contrary to what holds good in men it is commoner in married women than in single, and among single women of the richer classes the disease is practically unknown, although it exists among prostitutes above thirty years of age. Conjugal general paralysis develops almost always in the wife after the husband (Moenkemöller), and if the reverse order occurs it will probably be found that the wife had acquired syphilis before marriage and then infected her husband. The relative frequency with which conjugal general paralysis occurs, namely, 2.5 *per cent.* of the married couples affected, does not give any support to the hypothesis that there is a special or neurotoxic type of syphilis or spirochæte (Mott).

*Countries and Races.*

General paralysis, it is thought, is not so prevalent in primitive societies in the tropics where syphilis exists as in more highly

civilised countries, and this may be due to the simpler and less strenuous life led in the former, or it may be due to early marriage, different social customs, or to living mainly in rural communities. This opinion regarding its prevalence, on the other hand, may be based on erroneous or imperfect observation. The Japanese, for example, were formerly believed to be singularly free from general paralysis but not from syphilis, yet 15·8 *per cent.* were admitted to the Tokyo Asylum during the quinquennium from 1887 to 1901 (Peterson). The same opinions were expressed of the Abyssinians, and von Halban states that tabes is now more common in their country than in Vienna (Mott). The native Egyptians likewise were believed by Peterson in 1892 to have much syphilis but little or no general paralysis, but Dr. Warnock records in his annual report that 8 *per cent.* of the male admissions to the Cairo Asylum in 1909 were cases of general paralysis, the majority being Egyptians. According to Hutton, the disease has not yet appeared among the Eskimos of Labrador in spite of their terrible sexual excesses, but syphilis was introduced among them for the first time only in 1902. General paralysis is rare among Icelanders, and so is syphilis, and I am informed on good authority that the same facts are true of the West Indian negroes.

*Percentage of Syphilitics Attacked.*

General paralysis and tabes only develop in 3 to 5 *per cent.* of those infected with syphilis, and many have thought that this small percentage-rate was a fact telling against the syphilitic hypothesis, indicating possibly that syphilis alone could not cause the disease, and that another cause was probably associated with it. The tertiary lesions of syphilis affecting all the systems and not the nervous alone, according to Sir Douglas Powell, only occur in about 12 *per cent.* of all the cases originally infected with syphilis, and such lesions usually occur early, 40 *per cent.* of the lesions of the nervous system arising before the end of the third year (Byrom Bramwell). The soil for their development is nearly co-extensive with the number infected. On the other hand, only 4 *per cent.* of the cases of general paralysis occur before the sixth year, during which interval, judging by the results of the Wassermann reaction in

1490 cases of late latent syphilis examined, 63 *per cent.* of those originally infected have recovered (Mackintosh and Fildes), and a few may have died. General paralysis, being a late manifestation, therefore occurs in 9 to 15 *per cent.* of the remaining third who have not recovered from the attack of syphilis at the end of five years. This must be considered a fair proportion in contrast to the incidence of tertiary lesions of all the systems and in comparison with similar conditions, such as post-diphtheritic paralysis, only occurs in 15 *per cent.* of those affected, and it tells against the theory of a special type of syphilis in general paralysis.

#### *Accessory Factors.*

Among the causes believed to assist syphilis in the development of general paralysis the principal are alcohol, sexual excess, overwork, worry, trauma, infections, intoxication, and heredity. No doubt the combined action of two injurious agents like syphilis and alcohol will be much greater than the action of each singly, and the strictly specific action of each will be intensified owing to a diminished general resistance. Moreover, it is possible that neurotoxic infections may by their action determine the onset of general paralysis just as a trauma may start a gumma. The occurrence of juvenile and adolescent general paralysis does not, however, lend support to the view that these accessory factors play an important, far less an essential, part. In these early cases all the additional factors can usually be excluded with the exception of heredity, yet the disease develops after the same incubation period as adult general paralysis, and the symptoms present the same features, usually those of the feminine type.

#### *A Diphtheroid Bacillus.*

Special reference may be made here to Dr. Ford Robertson's hypothesis that a diphtheroid bacillus, to which he gave for convenience the name of *Bacillus paralyticans*, was the chief cause of general paralysis. I am in a position to affirm from numerous observations, mostly negative, conducted with great skill and care at my instigation in the laboratory of the Stirling District Asylum by Dr. Muirhead, that diphtheroid bacilli are to be found in the blood or cerebro-spinal fluid in about 33 *per cent.*

of the cases of general paralysis. These observations are confirmed by very few workers, and almost all of those who have carried out such investigations assert that they have found the blood and spinal fluid sterile. This was also Dr. Muirhead's experience with the vast majority of her cultures, but by repeating the experiments again and again, especially in relation to cerebral seizures, she was successful once or oftener in 33 *per cent.* of the cases. Not only have many pure cultures been thus made, but in a few cases the bacilli have been seen in blood-smears, and on one slide in particular they are to be found in thirteen different places and in two groups of four and five. The significance of their presence is a subject on which, however, with all deference, I do not agree with Dr. Ford Robertson, among other reasons, owing to the fact that they are also to be found in the blood in a similar proportion of cases of delirious insanity or acute hallucinatory confusion. These diphtheroid bacilli may possess a neurotoxic action, and may produce nervous and mental phenomena, but they can hardly be the essential cause of general paralysis under such circumstances. They have been found, for example, in the blood of a girl suffering from post-rheumatic or choreic insanity associated with a streptococcus, who in a short time made a perfect recovery.

#### *Krafft-Ebing's Inoculation Experiments.*

In the year 1897 Krafft-Ebing created a sensation by announcing that a friend of his had inoculated with active virus nine of his advanced general paralytic patients from whom no history of syphilitic infection could be obtained, and found that they were all immune. From this result he concluded that they had all previously been infected with syphilis, as well as the others in whom a definite history of infection had been obtained. This drastic experiment was, however, not scientifically conclusive, for there were no control cases inoculated with the same material, and no one knows if some of the healthy may not be immune to syphilitic inoculation. Had a reaction occurred this would not necessarily have disproved syphilitic infection, for it is believed that a virulent and extensive reinoculation may produce local symptoms or superinfection in unrecovered syphilis. Unless, however, we assume that all

patients suffering from general paralysis have been previously infected with syphilis, it is remarkable that none are seen suffering from either the primary or the secondary symptoms of syphilis, considering the frequency with which they expose themselves to infection in the early stage. A few instances of recent syphilis have been recorded, but the significance of these exceptional observations remains in doubt (Tanzi, Ballet).

### *The Positive Wassermann Reaction.*

The finding of a positive Wassermann reaction in the blood and cerebro-spinal fluid of persons suffering from general paralysis in 1906, like Krafft-Ebing's experiments, was believed at first to have conclusively demonstrated its syphilitic nature. Though the reaction is a very reliable clinical test of syphilitic activity, it is an empirical reaction and is not strictly specific, for it can be obtained by other means than by the union of syphilitic antigen with antibody. In spite of this objection the undeniable presence of the reaction in over 99 *per cent.* of the cases of general paralysis has added enormously to the strength of the syphilitic hypothesis, if it cannot be held to have proved it conclusively.

### *Links with Active Syphilis.*

It enables us also to differentiate general paralysis and tabes from every other condition that simulates it, excepting cerebro-spinal syphilis, which is in itself a strong proof of a very close relationship between these diseases and syphilis. In some cases an active tertiary syphilitic process of the nervous system has co-existed with general paralysis, and the combined lesions have been found after death. Links such as these between general paralysis and active syphilis are very important, for it is believed by Plaut that the nervous system is always prepared for the development of general paralysis by syphilitic changes. It is possible, too, that some of the so-called premonitory symptoms of general paralysis, isolated phenomena such as temporary confusion, paralysis, or convulsion, which occur years before the development of the disease, are due to cerebral syphilis, and are not early symptoms of general paralysis. For example, one of my patients acquired syphilis in 1883. Fourteen years later, during his honeymoon, he had a transient



attack of aphasia ; twenty-one years later he had a similar attack after an exhausting bicycle run, and twenty-nine years later had a third seizure which ushered in a typical general paralytic delirium ; and he has had several since. Were these first two seizures early symptoms of general paralysis, or were they a syphilitic complication? According to Magnan most probably the latter, but it is possible they were isolated symptoms with prolonged remissions, a species of *forme fruste* or an intermediate benign condition.

### *The Parasyphilitic Hypothesis.*

These observations, and the belief that the Wassermann reaction is a sign of active syphilis, have greatly weakened Fournier's hypothesis of parasyphilis, which is that general paralysis, tabes, and other diseases, while of syphilitic origin, were not of a syphilitic nature. This view was founded on the two observations that these diseases were not amenable to anti-syphilitic remedies, and the lesions found in them were diffuse and did not possess the characters of syphilitic lesions. The lapse of time between infection and the onset of the symptoms is no doubt also a factor to be reckoned with. There was much that was fascinating in this ingenious hypothesis, but it was never anything more than speculation. Our conception of the curability of syphilis has entirely changed since the Wassermann reaction has been employed to control its treatment. In the past many were unfortunately content to remove merely the external manifestations and call this a cure, although others wisely insisted on a prolonged course of treatment. We know now that while the manifestations of tertiary syphilis respond wonderfully to salvarsan and mercury, it is not possible in some cases to remove the positive reaction from the blood. Not only do such cases form a link in this respect with so-called parasyphilis, but there are occasionally cases of true syphilitic manifestations which are quite intractable. As a general rule, the later the lesion the less amenable is it to treatment, and general paralysis of course occurs very late. On the other hand, to affirm that a lesion, in spite of strong evidence, is not syphilitic because it is unlike any other known lesion, is an unscientific assumption, especially as our knowledge of late syphilitic phenomena, thanks to the Wassermann reaction, is only in its infancy as yet. The parasyphilitic hypothesis is an

offence against the *lex parsimoniae*, which affirms that the simple explanation should be preferred to the more complex, and according to this general paralysis and tabes should be considered signs of active syphilis and not of parasyphilis.

*The Discovery of Spirochætes in the Brain.*

The problem of the ætiology of general paralysis appears to have been finally and conclusively settled by the finding, at the end of the year 1912, by Noguchi, of the *Spirochæta pallida* in the brains of fourteen cases of general paralysis (*Journal of Experimental Medicine*, February, 1913). He employed a modification of the Levaditi method of staining, and he hopes by improving the technique to find it in a larger proportion of cases than 1 in 5. This is a most important and epoch-making discovery, for it not only decides for all practical purposes many theoretical questions, but it also points with confidence to one way, and one alone, of prophylaxis and treatment. The spirochætes are found in large numbers, as many as a dozen being sometimes seen in the field, in the grey matter of the convolutions. None are seen within the peripheral or neuroglia layer of the cortex or in the pia arachnoid, and few are found either in the white matter or round the vessels. In almost all instances the spirochætes seem to be burrowing among the nerve-cells. All these cases were of undoubted general paralysis, for the possibility of tertiary syphilis was carefully excluded by microscopical examination. A very interesting and important point is the localisation of the spirochætes among those cells, whose functional disturbance and degeneration is the probable explanation of the symptoms of the disease, and their proximity to the cells points to them as the immediate cause of their disordered function and degeneration. The theories of a parasyphilitic toxin, of secondary infections or of other accessory factors, sink into insignificance beside this convincing fact, and no other conclusion can be drawn from it than this, that general paralysis is one of the manifestations of active syphilis—a late manifestation, it is true, for which no doubt explanations will be forthcoming, but nevertheless one of genuine or true syphilis.

*A Special Type of Spirochæte.*

Noguchi's discovery does not dispose of the hypothesis that there is a special type of spirochæte in general paralysis, causing

mild symptoms, resistant to treatment, and with an affinity for the nervous system. The hypothesis originated when the ætiological difficulties appeared unsurmountable, but, with the facts we now possess, it appears to be an unnecessary elaboration. Dreyfus has found changes in the spinal fluid in 80 *per cent.* of cases of primary and secondary syphilis, so that nearly all types of syphilitic spirochæte at an early state seek the nervous centres. I have shown how probably 9 to 15 *per cent.* of cases of unrecovered syphilis at a late stage, after five years, may suffer from general paralysis or tabes—a larger proportion than was realised. Mild cases, in which adequate treatment has probably not been thought necessary, form a large percentage of these non-recoveries, and while the relationship of syphilis with mild manifestations and general paralysis has long been known, Fournier has also traced a connection between inadequate treatment and general paralysis. Finally, with regard to the results of treatment, the Wassermann reaction has shown us that tertiary and latent syphilis is not the simple and curable disease it was once thought.

The recorded instances of familial general paralysis and tabes and of several individuals infected from one source, while remarkable, are too few to found any theory upon, while on the other hand, the proportion of cases of conjugal general paralysis, namely 2.5 *per cent.* (Moenkemoller), is so low that it is evidence against the hypothesis (Mott).

#### *Conclusion of Etiology.*

In conclusion, it cannot be alleged that this great discovery by Noguchi is either unexpected or overturns our conceptions of general paralysis. The previous evidence, on the contrary, is in complete harmony with it; frequent references to the possibility of this discovery are to be found in recent literature; and many a futile search has been made in our laboratories for the spirochæte before the skill and perseverance of Noguchi were rewarded. Rather can it be said that it was owing to our failure to demonstrate the organism that the theories of parasyphilitic and other toxins continued to exist. The keystone has now been found and fitted to the arch, completing a solid structure on which we can safely base our theories of prophylaxis and treatment.

*Prophylaxis.*

The first and best measure for the prevention of general paralysis is the thorough treatment to complete recovery of the attack of syphilis. The earlier this is begun the more likelihood is there of attaining success, for primary syphilis is more curable than secondary, secondary than tertiary, and tertiary than latent syphilis. Cure, too, is tested, not by the disappearance of all visible manifestations of the disease, but by a permanently negative Wassermann reaction for anything else is futile. One dose of salvarsan or a course of mercury may cause a skin eruption to disappear completely without curing the disease or influencing the Wassermann reaction in the blood at all, and we know from experience that most of those who develop general paralysis suffer from latent syphilis presenting no visible signs.

The employment of the Wassermann reaction as a test of recovery from syphilis is its most useful service, for the chief cause of the tragedy of the past was the absence of such a test, one-third of the cases treated not having been cured of their disease. The evils resulting from this we are only now beginning to realise, and they include not only general paralysis and tabes, aneurysm and aortic disease, but many other organic and nervous diseases with an obscure ætiology. Sufficient time has not elapsed to enable anyone to say that a complete cure of syphilis by salvarsan, with a permanently negative Wassermann reaction, will prevent the development of general paralysis, but it is reasonable to think so.

In a third to a half of the cases of tertiary and latent syphilis the Wassermann reaction continues positive in spite of anti-syphilitic treatment (Boas), and in these prophylactic measures must be adopted. In all cases with a persistent positive reaction in the blood the cerebro-spinal fluid should be examined, because from a very early stage the nervous system may be involved. Dreyfus found in 80 *per cent.* of his cases of primary and secondary syphilis, irrespective of the presence or absence of any symptoms pointing to involvement of the nervous system, a lymphocytosis of the cerebro-spinal fluid. This lymphocytosis varied with the efficiency of the treatment and the course of the disease, being well marked when the disease was active, and diminishing under treatment. It would then seem that

the nervous system attracts all types of syphilitic organisms, and these observations do not support the view of a special or neurotoxic type. If lymphocytosis be found in the spinal fluid of persons suffering from latent syphilis with a positive reaction in the blood, it is necessary for these persons to lead very quiet lives, avoiding all sources of mental or nervous excitement, or exhaustion and the use of alcohol. Cases of latent syphilis with lymphocytosis have been found presenting no nervous symptoms, and there is no proof existing that cases with a lymphocytosis are more likely to develop general paralysis than those without it; indeed in 10 *per cent.* of the cases of general paralysis itself there is no definite lymphocytosis. Nevertheless, while all cases of latent syphilis should avoid nervous excitement or strain, this precaution seems specially needed in those cases with a lymphocytosis. It seems also desirable that persons suffering from latent syphilis with a persistent positive reaction in the blood, should periodically submit themselves to courses of salvarsan and mercurial treatment. Although in a third to a half of the cases of tertiary and latent syphilis the positive reaction will persist in spite of the treatment, in over 93 *per cent.* of the cases (Boas) the intensity of the reaction will be diminished, indicating a lowering effect on the activity of the disease, which it is also reasonable to suppose must be beneficial.

In 9 to 15 *per cent.* of those suffering from late latent syphilis with a positive Wassermann reaction in the blood, either general paralysis or tabes will develop. If in the course of the periodical examinations of the cerebro-spinal fluid a partially positive Wassermann reaction be found to occur, with an increase of globulin and the presence of albumen, a very grave view should be taken of the situation. The case should be regarded as one of commencing general paralysis, and the treatment recommended for that disease should be adopted.

#### *Treatment with a View to Cure.*

The course of a case of general paralysis offers many opportunities for treatment, but I shall only deal here with treatment with a view to cure. The question at once arises—Can general paralysis be cured, and have recoveries ever taken place? No satisfactory answer can yet be given to this question, for although

in the past many cases of supposed general paralysis have recovered, it is not possible to say with absolute and scientific accuracy that these were cases of general paralysis and not of mistaken diagnosis. On the other hand, no one can deny the possibility of general paralysis recovering in the face of the evidence that exists and so long as the diagnosis is uncertain. Till the new serum and cerebro-spinal fluid tests were introduced, the chances of error in diagnosis in experienced hands varied from 6 to 15 *per cent.*, and the probability of an error being made was much greater than that of a recovery. Some cases of cerebral syphilis and of alcoholic insanity not only simulate general paralysis exactly, and cannot be differentiated by clinical symptoms during life, but they are also the very class of case which tends to recover, and therefore they are the more likely to be mistaken for supposed cases of general paralysis that have recovered.

*Remission, Arrest and Attenuation.*

The subject of remissions is one which is not without some bearing on this problem, and they offer possibly more valuable information than doubtful recoveries. It is well known that they not infrequently occur in general paralysis, and while they usually last about six months or a year, in rare instances they may last for four or five years. Although all the acute symptoms of the disease are in abeyance during this time, the patient usually shows some mental and physical abnormality, the result of the damage already done. If a disease, by character progressive, ceases to show any signs of activity for four or five years, it is not inconceivable that it may do so for eight or ten, sixteen or twenty years, or even become arrested permanently.

The most remarkable instance of remission is one recorded by Sir Thomas Clouston of a patient, also observed by me, who lived for over thirty years. During the first five years the patient presented the typical symptoms of general paralysis, and was unhesitatingly diagnosed as such on admission by Dr. Skae. During the next fifteen years the acute symptoms were absent and the disease was stationary. During the twenty-first year of his illness the acute symptoms returned, only to disappear again for seven years. They finally appeared again during the last two years of his life, the twenty-ninth and thirtieth since his admission to the asylum. After death, the brain was examined

by Dr. James Middlemass, and found to present the characteristic appearances of general paralysis. The clinical symptoms of this case are vouched for by three physician-superintendents of the Royal Edinburgh Asylum, and the histological signs by a most careful and competent pathologist.

Arrest of the disease or remission of the symptoms of a permanent kind may also occur. Thus, Kraepelin quotes the case of Tuzek, which presented the typical clinical symptoms of general paralysis for two years and then lived for over twenty years afterwards. On his death the cortex was examined by Nissl, who found the characteristic anatomical changes of general paralysis. Dana, of New York, writing on this subject, states that as tabes is often arrested in its early stages, so that the patient lives for ten, twenty or thirty years after, without change or symptom, may not the same process occur in the related disease, general paralysis?

Two of my cases of general paralysis rather favour the view that the active process tends in the course of years to die out in some cases. One of these had suffered from general paralysis for twelve years, with stationary symptoms for the last seven or eight, and the Wassermann reactions in both the blood and the cerebro-spinal fluid, were negative. The diagnosis of this case was confirmed by the naked-eye appearances after death. The other, with very slight and stationary symptoms, had been affected for eleven years, and his cerebro-spinal fluid gave a negative reaction, and there was no lymphocytosis, though there was a positive reaction in the blood. This was found to be an undoubted case of general paralysis by Dr. Muirhead and Dr. Ford Robertson, but the histological signs were less extensive and less marked than usual. All of this evidence, if not of a very favourable or conclusive character, at least does not give any support to the contention that general paralysis is hopelessly incurable and fatal.

#### *Anti-Syphilitic Treatment.*

For a disease that is believed to be incurable and fatal it is surprising how many remedies have been found, almost all of which have been alleged at one time or another to cure it. It is useless to go over a list which contains such diverse agents as pilocarpin and trephining, radium emanations and injections of

tuberculin, or seriously consider such assertions as that of one observer, who stated that he cured 50 *per cent.* of his cases by injections of nucleic acid.

The form of treatment which I have devised consists in the employment of the following agents, and I am indebted to Dr. Dods Brown, Dr. Muirhead and my other assistants for their valuable aid in carrying out its details.

(1) *The intra-venous injection of salvarsan.*—The amount used varied with the strength of the patient, but was '3 to '6 of a grm. for the average man, and '2 to '3 grm. for the average woman. These were repeated three or four times at intervals of a month or so.

(2) *The intra-spinal injection of anti-syphilitic serum.*—This serum was obtained through the co-operation of Mr. Dowden from patients suffering from the secondary stage of syphilis, who had three days earlier been given an injection of salvarsan. This serum is highly charged with syphilitic antibodies, and it was administered because it had been suggested that a possible explanation of the disappointing results of anti-syphilitic treatment in general paralysis was the inability of the patient through exhaustion to produce antibodies. This serum was injected intra-spinously in order to bring the remedy near the seat of disease. It was usually administered in the intervals between the salvarsan injections, and it seldom produced any noticeable reaction.

*Preparation of serum.*—The method of preparation was as follows: 20 or 30 c.c. of blood were withdrawn with aseptic precautions by venepuncture from the arm of a syphilitic patient who had been treated three days previously with a full dose of salvarsan. This was allowed to clot, and care was taken to separate the clot from the side of the tube, which facilitates the formation of the serum. At the same time cultures were made from the serum, and the clotted blood was left on ice for about twenty-four hours. If the serum was sterile it was gently poured into a sterile flask with other sera, thus making a mixed serum, and in some instances it was found necessary to centrifuge the serum. Ten or 15 c.c. of this mixed serum, twenty-four or forty-eight hours old, was used for injection. A non-sterile or suspicious serum was always discarded. A record syringe was used for the injection of the serum, as the point fits the end of the lumbar puncture needle



accurately. Before making the injection an amount of spinal fluid was withdrawn, equal to that of the serum which it was intended to inject.

(3) *The intra-spinal injection of salvarsan serum.*—Owing to the cerebro-spinal fluid being chiefly a secretion, many drugs, *e.g.*, iodide of potassium, do not reach it; salvarsan administered intra-venously is found in it, though only in minute quantities. The salvarsan serum injected intra-spinously was a means devised of bringing the drug in fair quantities into the fluid and into immediate contact with the membranes. It was obtained by drawing off by venepuncture some of the patient's own blood an hour after he had received an intra-venous injection of salvarsan. It was only administered on a few occasions, and it was followed by a slight rise of temperature. The direct administration of salvarsan itself intra-spinously would almost certainly be fatal, judging by its results on rabbits, when thus administered.

The salvarsan serum was collected and treated in exactly the same way as the anti-syphilitic serum, but the injection was given before the serum was twenty-four hours old and in smaller doses, 3 or 4 c.c.

(4) *Urotropine.*—While the patient was undergoing the anti-syphilitic treatment he received full doses of urotropine (10 gr., *t. i. d.*), as marked improvement has been reported in several cases of general paralysis while undergoing this form of treatment. It is secreted in larger quantities than most drugs into the cerebro-spinal fluid, and thus its bactericidal powers may act here as well as in the bladder.

(5) *Calomel.*—This was given twice weekly.

#### *Results of Treatment.*

The solid results obtained by this treatment were disappointing, but it seldom happened that a patient did not show some slight improvement in his symptoms after the first or second injection. As an instance of this I mention the case of one patient who wrote several characteristically insane letters just before receiving his injection. Next day he was much improved, and asked the matron for the letters he had written the day previous, and, on receiving them, tore them up and threw them into the fire. In five out of the twelve cases

treated at Craig House there was considerable excitement, and all of these benefited and became calmer. Three of the twelve cases recovered sufficiently to be discharged from the asylum, and of these one relapsed after six months; another several months afterwards met with a fatal accident at home; while the third has remained well for a year. This last case was exceptional in the long duration of the incubation period, having been definitely infected thirty-eight years previously, but there was also the history of a possible re-infection six years later. Unfortunately, so far as deductions favourable to salvarsan are concerned, it has been my experience to see a similar temporary improvement in the symptoms of general paralysis from every form of vigorous treatment that I have applied, especially if applied soon after admission.

In none of our patients did the Wassermann reaction become negative, but in a number there was a distinct diminution in its intensity, which increased again later on. On the Continent, Alt and Willige (Browning and Mackenzie, p. 193) report that they produced a negative reaction in the serum in one-fifth of their cases, but these also in a few months became positive again, although in some cases not for a year and a half. In some cases, however, it remained negative for a year and a half. In three of our twelve cases there was a marked and durable diminution in the number of lymphocytes, and in three others it was slight and of a temporary nature. We have found that the number of lymphocytes and the amount of complement deviated in the Wassermann reaction vary without treatment and without apparent relation to the acuteness of the symptoms, but the above changes were of a sufficiently striking nature to be noticed. There was no change in the amount of the globulin or albumen. Roughly speaking it may be said that in one-half of our cases there was evidence of improvement as regards the Wassermann reaction and the lymphocytosis—signs that the activity of the disease process had diminished.

### *Criticism of Treatment.*

On carefully weighing these results of the use of salvarsan in the treatment of general paralysis, which are similar to those recorded by others, the opinion I have arrived at is that the treatment was not vigorous enough either as regards the amount

of salvarsan administered, the number of the injections, or the rapidity with which these succeeded one another. We were dealing with a new drug, the administration of which in a severe nervous disease was not without an element of danger. Our measures, too, were half-hearted, because our belief in the syphilitic nature of general paralysis was wavering and inconclusive so long as the parasymphilitic theory of Fournier could not be disproved or held to be improbable. The situation is now entirely changed by the experience we have gained during the last two years of the treatment of other forms of syphilis by large and repeated doses and by Noguchi's discovery of spirochaetes in the brains of those suffering from general paralysis. Very few persons will now be found to deny the syphilitic nature of general paralysis, and I cannot conceive of any medical man denying that the spirochaetes found among the nerve-cells of the cortex are one factor in the causation of the symptoms, in those cases at least in which they are found. With this sure foundation on which to base our treatment we can now act with vigour and determination, unhampered by doubt.

It has been found that, speaking generally, the longer syphilis has lasted the more intractable it is to treatment by salvarsan, and general paralysis is a very late manifestation. Judging from this fact alone it might be concluded that it would prove to be intractable, and from the intensity and constancy of the Wassermann reaction it might be inferred that it was not only a late but a very extensive and active infection. It, therefore, calls for the maximum intensity of anti-symphilitic treatment.

In syphilis of the nervous system, Dreyfus (*Munch. med. Woch.*) recommends the total administration of 6 to 9 grm. of salvarsan, injected in doses of 0.3 to 0.4 grm., twice a week for a period of eight to twelve weeks. This is four times the quantity, administered eight times more rapidly than was our practice. If the reaction after each injection be severe, the succeeding injection should be delayed till the temperature has fallen. In addition to this enormous dosage of salvarsan he recommends the employment of mercury, but even this vigorous and combined treatment had no permanent effect on general paralysis, though he claims to have benefited tabes. One wonders whether the injection of salvarsan serum intraspinously in addition would have made a difference, or whether

the administration of twice or even three times the quantity of salvarsan would not finally have had some arresting effect on general paralysis.

Although success has not been attained there are hopeful indications, for it appears that the disease process, if not suppressed, is at least touched in a half of the cases. The decrease in the lymphocytosis, the diminution in the intensity of the Wassermann reaction, and its disappearance for over a year in some cases are hopeful signs of the most convincing and satisfactory kind.

### *The Problem of Treatment.*

The question now arises, Are we justified in pushing this anti-syphilitic treatment to the extreme? Desperate diseases call for desperate remedies, and surgeons operate under conditions in which a definite percentage of their cases are certain to die from the immediate results of the operation, feeling their action justified if the lives of the majority are saved. General paralysis is as desperate a disease as any cancer, for 50 *per cent.* of those suffering from it die in one year, 75 *per cent.* in two years and 90 *per cent.* in three years, and the existence of the few who survive this period is a living death. Are the ethics of the surgeon and physician so different that a principle of the former cannot be followed by the latter under circumstances as hopeless and desperate? Are physicians, then, justified in general paralysis in pushing salvarsan and mercury to the most extreme limits compatible with survival, in the hope of curing at least a percentage of their cases? No doubt under these circumstances, owing to the amount of salvarsan probably required, like the surgeon, the physician would require to be prepared for a certain percentage of deaths from the drug itself.

The time seems ripe for a determined effort on these lines, but the weak point in the advocacy of such a course is the fact that, however hopeful the prospects may seem, no one can assert with confidence that a single case would recover. Syphilis, therefore, should be treated when it is possible to cure it, and seeing that the cause of it is known, an accurate test of its activity exists, and a powerful remedy found for it, it will be a slur in the future on the profession of medicine if the seeds of general paralysis and tabes are permitted to remain in the human soil till it is too late.

*The Neuropathic Inheritance.* By F. W. MOTT, M.D.,  
F.R.S.

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SYNOPSIS.

I.

- (1) Insanity and the neuropathic inheritance.
- (2) Temperament and heredity—Galton's researches.
- (3) Mendelism and the neuropathic inheritance. The researches of Dr. Weekes and Dr. Davenport.
- (4) The neuropathic inheritance in relation to genius and insanity, suicide, degeneracy, selfishness, and neuroses.

II. *The Investigation of Relatives in the London County Asylums.*

- (1) The analysis of 3,118 cases.
- (2) Antedating or anticipation statistics and pedigrees showing this mode of elimination of unsound elements from a stock. Data relating to 508 insane offspring of 464 insane parents. Collateral heredity and antedating.
- (3) Study of neuropathic inheritance by pedigrees. A number of selected pedigrees to show points of interest.
- (4) Single compared with dual neuropathic inheritance.
- (5) Propagation of the insane in relation to hereditary transmission.

III. *A Study of General Paralysis in Relation to Neuropathic Inheritance.*

- (1) The incidence of general paralysis in families where there have been two members of the family in the London County Asylums.
- (2) Comparison of incidence of general paralysis amongst resident related cases and general paralytics resident in the Asylums.
- (3) Comparison of death incidence from general paralysis amongst total deaths during the last five years in the London Asylums, and incidence of general paralysis amongst related cases that have died.

IV. *The Creation of the Neuropathic Inheritance in Healthy Stocks.*

*Insanity and the Neuropathic Inheritance.*

There are individuals born of mentally and physically sound stocks that no acquired conditions—*e.g.*, disease, drink, poisons, engendered within the body or taken in from without, head injuries, emotional shock, distress, and even profound misery and destitution combined—can render insane. There are others, and these are in most cases derived from a neuropathic stock, whose mental equilibrium may be disturbed by any one of these conditions, or even without any apparent cause, except the physiological conditions, appertaining to the functions of the sexual glands at puberty and during adolescence, the puerperium, lactation, and the climacteric period of women. Between these two extremes are all gradations of mentality from the congenital imbecile and the insane adolescent dement at one end of the scale to the potential sound mind and body that no combination of acquired conditions can render permanently insane. Maudsley, in his *Pathology of Mind*, has truly said: "A person does not inherit insanity, but a tendency or predisposition to it; and secondly, the tendency is inherited from the stock, and not from any particular development of it in the parentage. It is easy to understand that it is not in special individual outcomes, but in the foundation of the family nature, that we must search for the foundation of insanity." Following this wise advice, every case of insanity should be regarded as a biological problem, and the study resolves itself into the acquirement of a knowledge of what an individual is born with—nature—and what has happened after birth—nurture. The former can only be approximately ascertained by the study of the ancestral stocks, requiring a careful inquiry and analysis of the family histories of the members in the direct line, and if possible of the collaterals. By careful attention and inquiries many important facts in respect to the transmission of a neuropathic taint can be obtained. It must always be remembered that the neuropathic tendency may be manifested in different members of the stock in different ways.

*Temperament and Heredity.*

Just as the bodily features are transmitted from one generation to another, so is the temperament. The inborn raw

material of character is the complex sum total of the fixed and organised characters of the species and the sex, modified by special racial and family characters. The former are dependent upon complexes of primitive states of feeling and cognition based upon the appetites and desires and the appropriate instinctive reactions for their satisfaction, thereby ensuring the preservation of the individual and the species. The instinctive reactions are associated with concomitant primitive emotional states of feeling and objective manifestations peculiar to the sex and the species. The oldest phylogenetically, they are common to all human beings and are the mainspring of all human action, and this fact has been poetically expressed by Schiller in the following lines :

" Durch Hunger und durch Liebe,  
Erhält sich die Weltgetriebe."

The special racial and family characters are of later development, therefore are far less fixed, stable, and organised in the nervous system, consequently are more liable to mutation. A child is born into the world with inborn immutable and mutable characters derived from these genetic sources; of the importance of the inborn characters in future conduct there can be no doubt; in proof thereof I need only remind you of Galton's remarkable inquiry into the history of twins. He found that similar twins (developed from one ovum and therefore identical germ-plasm) living in a different environment remained similar in temperament and character, while dissimilar twins brought up and living in the same environment remained dissimilar; these dissimilar twins, however, were the product of two separate ova with dissimilar germs.

Again, Galton, although he formulated a law of ancestral inheritance which appears to be contradictory to the accepted Mendelian law, certainly recognised that the law only applied to masses of people, and not to individual cases, for he said: "Though one half of each child may be said to be derived from either parent, yet he may receive a heritage from a distant progenitor which neither of his parents possessed as personal characteristics."

Galton also made a statistical inquiry into the inheritance of good and bad tempers, and his conclusions were that one set of influences tends to mix good and bad tempers in a family at

haphazard; another tends to assimilate them, or that they shall all be good or all be bad; a third set tends to divide families into contracted portions. Moreover, he showed that there is always a tendency to revert to the normal average of the race—the law of filial regression. The older and more fixed a character is, the more liable is it to this law of filial regression.

A study of the neuropathic inheritance generally accords with Galton's inquiries on tempers. Still, the subject which is of paramount importance and interest in heredity now is: Can Mendelism be applied to human characters?

*Mendelism and the Neuropathic Inheritance.*

Professor Pearson, while entirely admitting segregation of unit character, says: No evidence exists of Mendelian proportions occurring in the transmission of obvious human unit characters—*e.g.*, pigment and absence of pigment (albinism). Professor Bateson does not affirm that it has *been proved* for human characters although he believes that it exists, for he says: "Organisms may be regarded as composed to a great extent of separate factors by virtue of which they possess their various characters or attributes. These factors are detachable and may be recombined in various ways. It thus becomes possible to institute a factorial analysis of an individual."

How far such analysis can be carried we do not yet know, but we have the certainty that it extends far, and ample indications in supposing that we should probably be right in assuming that it covers most of the features, *whether of mind* or of body, which distinguish the various members of a mixed population like that of which we form a part.

From such a representation we pass to the obvious conclusion that an individual parent is unable to pass on to offspring a factor which he or she does not possess. Since those individuals only which are possessed of the factors can pass them on to their offspring, so the offspring of those that are destitute of these elements (nulliplex) do not acquire them in successive generations, but continue to perpetuate the type which exists by reason of the deficiency.

Dr. Weekes and Dr. Davenport have recently published a remarkable paper on "The Inheritance of Epilepsy," which they



claim shows Mendelism in the inheritance of this disease and imbecility. It is a research of great value apart from theoretical

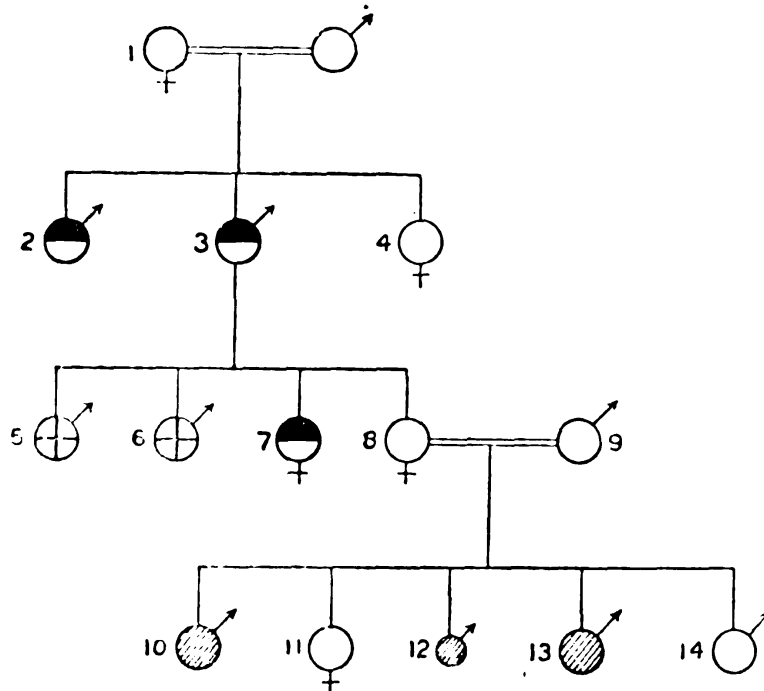


FIG. 1.—The above pedigree shows the transmission of insanity, immorality and violent temper. No. 1, the grandmother, was immoral; was found in bed with another man by her husband and son. Of her children, No. 2, an engine-driver, was "a man of violent temper who smashed things on a wholesale scale at home. He died with the delusion that he was going to heaven on the foot-plate of an engine." No. 3 was also a man with a violent temper, dangerous to himself and others, who eventually died from general paralysis. The daughter, No. 4, was criminally immoral; she had an illegitimate child, but no children by her marriage. The children of No. 3 are as follows: Nos. 5 and 6, both men with violent tempers, drunken and immoral; No. 7, a daughter, criminally immoral, who eventually was detained in Bethlem for a period. No. 8 is a woman with a very violent temper, smashes things, and has attacked her husband with a poker, etc.; has tried to commit suicide by poison and once by hanging; gushes to every man, but repels her husband. The husband asks, "Is she mad or bad, or both?" The husband is a healthy, robust man, who comes from a good healthy stock. The children were five in number; two survive (Nos. 11 and 14), and these fortunately resemble the father; they are healthy, robust and energetic. The first-born, No. 10, was a boy resembling his mother; he was nervous, reserved, lacked mental energy, and was prone to somnambulism and night-terrors, which existed in his mother's family; he died under an operation at the age of 12. No. 12 was the image of his father, but died from measles when 10 months old. No. 13 was nervous and resembled his mother; at 19 months he died from whooping-cough.

considerations on account of the number of pedigrees recorded, but it appears to me to be open to several criticisms. Schuster,

in a review, thus sums up the paper: "The inheritance of epilepsy and feeble-mindedness can be briefly stated as follows: Such very different conditions as epilepsy and feeble-mindedness must indicate some essential difference in the germ-plasm, and the tables which the authors produce show a distinct tendency towards the specific inheritance of these two characters separately; thus the proportion of children who are epileptics born of parents who are both epileptic is higher than when one parent is epileptic and the other feeble-minded, and considerably higher than where both are feeble-minded." It seems to me that there is an inherent fallacy in assuming that epilepsy and feeble-mindedness can own the same cause—*viz.*, an absence in the gametes of one and the same germinal determinant or specific factor.

"Dr. Weekes assumes the presence in the zygote of a particular factor or determiner necessary to ensure normal development. If it is absent, feeble-mindedness or epilepsy will be the result. Individuals in whom it is absent are called 'nulliplex'; according to the older terminology they would be styled pure recessives or homozygous with regard to the absence of this particular factor.

"The term 'simplex' is used to describe the heterozygote. Simplex individuals are said to possess an intermediate mental status, though some are apparently normal. It is nowhere precisely stated what are the symptoms of the 'intermediate mental states.' But the majority of persons classified in the tables as simplex are either alcoholic or neurotic. Persons who are really normal are called duplex. They have the normal development determiner twice over or are homozygous with regard to its presence." If this theory be correct, as Schuster remarks, then when nulliplex mates with nulliplex one would expect to find the offspring all nulliplex. In other words, the children of parents who are both feeble-minded or epileptic should be all feeble-minded or epileptic themselves. His own tables, however, show this not to be the case. When the Mendelian proportions are not borne out the authors endeavour to explain the fact in various ways: thus when the nulliplex feeble-minded and epileptic offspring are in excess of expectation the excess is accounted for by parental alcoholism. Schuster points out another and more obvious explanation—*viz.*, the manner in which the material was collected, which had the effect

of ensuring at least one epileptic in almost all the fraternities investigated.

Bateson has recently said : " It should be explicitly stated, however, that in the case of the ordinary attributes of man we have as yet unimpeachable evidence of the manifestation of this system of descent for one set of characters only—namely, the colour of the eyes. Moreover, if the evidence as to normal characteristics of man is defective, which, in view of the extreme difficulty of applying accurate research to normal humanity, is scarcely surprising, there is in respect to numerous human abnormalities abundant evidence that a factorial system of descent is followed."

This may be true for certain well-defined abnormalities, but as applied to the inheritance of the neuropathic tendency Mendelian proportions cannot be shown, according to my experience, and this is not surprising, considering the many forms in which it exists ; and even if we take epilepsy, which is perhaps the most easily determinable of all conditions, yet there must be many undiscovered forms which would elude even an expert inquiry concerning the members of the stock affected.

#### *The Neuropathic Inheritance.*

" Like tends to beget like," but a collection of statistics and pedigrees merely relating to the existence in members of a stock of certified insanity or " fits," or weak-mindedness, is quite inadequate for scientific purposes, as the neuropathic predisposition manifests itself in many different forms, and it is necessary to know something of the temperament and conduct of all the members of a fraternity and as many of the stock as possible to make scientific deductions of value ; and this requires time and patient investigation by a skilled person. It is very important to seek the first stages and less obvious condition of degeneration in the stock.

Morel, who studied this question more than fifty years ago, pointed out that nervous irritable weakness, the neurotic temperament, neurasthenic predisposition, may be the first evidence of degeneration of a stock. The inborn morbid temperament may be manifested in a variety of ways by the behaviour and conduct observed in various members of the stock. The signs of degeneracy which may be exhibited are

self-centred narrow-mindedness in religious beliefs, fanaticism, mysticism, spiritism, an unwholesome contempt for traditional custom, social usages, and morality, a vain spirit of spurious art and culture, a false, self-loving vanity in the pursuit of a sentimental altruism, or by eccentricities and anti-crusades and perversions of every kind, the intelligence being well preserved; such signs of degeneracy are often combined with talent and even genius, especially of the constructive imaginative order; but the brilliant intellectual qualities of a degenerate are generally associated with either a lack of moral sense or of sound judgment and highest control. Nevertheless, these neuropathics often serve a useful purpose by their disregard of tradition and social usages. Time, chance, circumstances and opportunities play an especially important part in moulding and determining the career of a neurotic stock; circumstances and environment may favour one member and he rises on the tide of fortune to an eminent position, whereas another, unfortunate or less fortunate, but with a similar inborn temperament, dies in an asylum or commits suicide in despair.

### *Genius and the Neuropathic Inheritance.*

The genius of imagination of the prophet, the poet, the artist, the patriot, and the philosopher, and lust for action of the world's great leaders of men, are so frequently associated directly or indirectly with the neuropathic taint, that Dryden's lines have become a recognised truism:

"Great wit to madness sure is near allied,  
And thin partitions do their walls divide."

The ancients recognized the close association of genius and madness. "All the greatest benefits of Greece have sprung from madness," said Pliny; "there is no mind without a mixture of madness," said Aristotle; he also stated that under the influence of congestion of the brain there were persons who became great poets, prophets, and sybils. (*Problemata*, sec. xxx.) How true this is may be gathered from the fact that the world's history has been made by men who were either epileptics, insane, or born of a neuropathic stock. Alexander the Great, Julius Cæsar, Napoleon, Peter the Great, Frederick the Great, Pitt Earl of Chatham, and Mahomet. The Apostle Paul,

Martin Luther, Emanuel Swedenborg, and a host of names of lesser fame may be recalled. When we turn to the poets—and I will content myself by referring to the English poets—we call to mind the names of Cowper, Wordsworth, Byron, Burns, Chatterton, Thomson, who were either insane or possessed the neuropathic temperament; in fact, that mutation of temperament from the “honourable ordinary” which tends to genius may also lead to insanity in some members of the stock, and not infrequently to the combination of genius and insanity in one individual. We do not know how it comes about that a genius springs up from an unknown source; with a meteor-like flash he appears and disappears. The imaginative faculty may be artificially stimulated by drugs and alcohol. De Quincey is said to have derived his imagination from the opium habit he had contracted; Hartley Coleridge likewise; and it is said that the *Ancient Mariner* was the result of dreams or hallucinations due to opium. But it is the temperamental inheritance which is essential for poets such as Byron, Wordsworth and Burns; they were born and not made, nevertheless their history shows that they possessed the neuropathic temperament or inheritance.

The influence of Nature and nurture on the mind of Byron can be best divined by his own description in *Childe Harold* :—

“ I have thought,  
Too long and darkly till my brain became,  
In its own eddy boiling, and o’er wrought,  
A whirling gulf of fantasy and flame.  
And thus untaught in youth to tame,  
My springs of life were poisoned.”

It is said that Byron was subject to attacks of epilepsy; the most trifling circumstances would cause him to swoon. He had seizures with convulsions. This noble poet was the child of passion, born in bitterness and nurtured in convulsions. His maternal grandmother suffered from melancholia and committed suicide; another relative took poison. His mother was eccentric. His father, who was known as “Mad Jack Byron,” committed suicide. So that there was a marked neuropathic taint on both sides in the progenitors of this greatest of poets.

Charles Lamb’s father was insane, also his sister. Dorothy Wordsworth, the sister of the poet, died insane; his daughter Catherine suffered from epilepsy, and another is said to have

suffered with periodic insanity. Pope's mother suffered from senile dementia. Dean Swift's uncle died insane. James Thomson's father suffered from paralysis; his mother from melancholia. Cowper inherited insanity from both maternal and paternal stocks; he was insane, and several times attempted to commit suicide. In a letter to Lady Hesketh he says: "Could I be translated to Paradise, unless I could leave my body behind me, my melancholy would cleave to me there." His descriptive account in his autobiography of his feelings is a remarkable picture of depressive insanity.

Many of these poetic geniuses suffered with the pangs of indigestion, embittered by the pangs of poverty and neglect, and their fame is posthumous. Burns, writing to a friend, said: "Canst thou not minister to a mind diseased? Canst thou speak peace and rest to a soul lost in a sea of troubles, without one friendly star to guide her course, and dreading that the next surge may overwhelm her? Canst thou give to a frame, trembling alive to the tortures of suspense, the stability of a rock that braves the blast? If thou canst not do the least of these, why wouldst thou disturb me in my miseries with thy inquiries after me?"

From early life Scotland's immortal poet was subject to a disordered stomach, a disposition to headache, and irregular action of the heart. He describes in one of his letters the horrors of his complaint: "I have been for some time pining under secret wretchedness. The pang of disappointment, the sting of pride, and some wandering state of remorse settle on my life like vultures when my attention is not called away by the claims of society or the vagaries of the muse. Even in the hour of social mirth my gaiety is the madness of an intoxicated criminal under the hands of an executioner. My constitution was blasted *ab origine* with a deep, incurable taint of melancholy that poisoned my existence."

These revelations make one think of the truth of what Nietzsche exclaims: "Who would dare to glance at the desert of the bitterest and most superfluous agonies of spirit in which probably the most productive men of all ages have pined away?"

There can be no question but that the morbid irritability which many men of genius have manifested was but a defect of bodily derangement upon a sensitive mind. Byron, in one of his letters, said: "I am suffering from what my physician terms gastric irritation. My spirits are sadly depressed. I have

taken a brisk cathartic, and to-morrow Richard will be himself again."

It is recorded that Voltaire and an Englishman, after a long conversation on the evils of this world, made a compact to die together the next day. The Englishman appeared and expected Voltaire to keep his promise, but the cynical genius thus expressed the change of his mental attitude: "Ah! monsieur, pardonnez-moi, j'ai bien dormi, mon lavement a bien opéré, et le soleil est tout à fait clair aujourd'hui."

The fame of immortals is too often posthumous, for at all

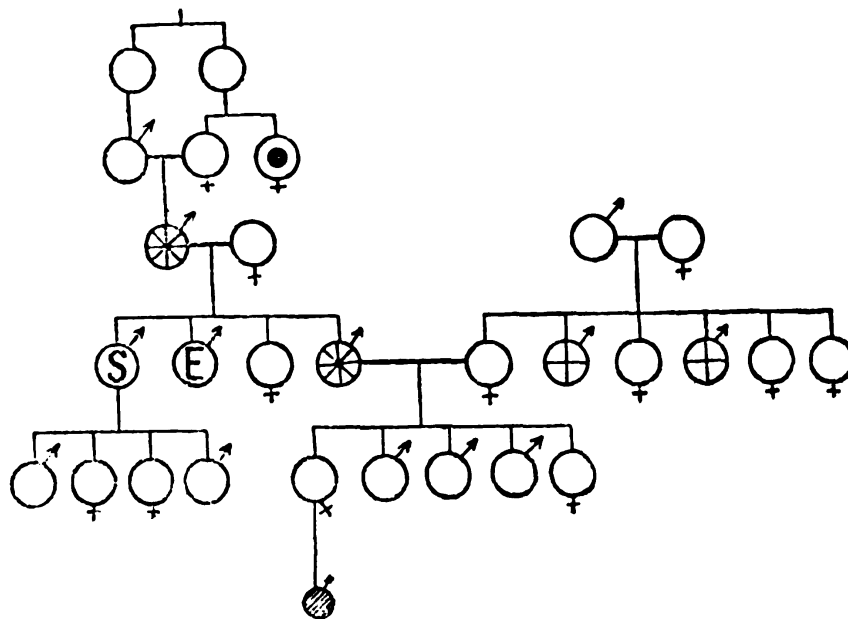


FIG. 2.—A pedigree, illustrating the marriage of first cousins. A genius was the result; he married a healthy woman, and their family consisted of an eldest son, a suicide; a second son, an epileptic; a daughter, healthy, unmarried; and a son, a genius. This man was a genius, but had an extremely well-balanced mind; all his five children are healthy in spite of collateral inheritance on both sides. Circles with black centres, physically unsound. Circles in quadrants, alcoholism. Circles in octants, genius.

periods in history a new religion, social progress, or even scientific advancement which overthrows established customs, usages, and traditions, have been too often regarded by the mass of the people either as works of the devil, of wicked men, or of madmen. Bacon, in his *Advancement of Learning*, is almost prophetic of his own fate, when he says: "The doctrines in greatest vogue among the people are either the contentious and quarrelsome, or the showy and empty; that is, such as

may entrap the assent or lull the mind to rest, whence, of course, the greatest geniuses of all ages have suffered violence, whilst out of regard of their own character they submitted to the judgment of the time and the populace. And thus, when any more sublime speculations happened to appear, they were commonly tossed and extinguished by the wrath of popular opinion."

*Degeneracy and Successful Selfishness.*

How often may it be observed that an apparently sound stock may in reality be unsound. Successful men in the eyes of the world may be really degenerates; not infrequently so-called self-made men form the first step in the process of degeneration. The selfishness and meanness or the cunning avarice and moral guile by which they have succeeded in selfishly amassing a fortune for their children to spend selfishly is the first evidence of degeneracy; but whereas the parents, to gratify their selfish desires, succeeded by work and abstemiousness, the children, possessing the same selfish instinct, with no need to work, and supplied with abundant wealth, acquire vicious habits and criminal propensities, and not infrequently terminate their careers in the madhouse or prison.

I have often found in the collecting of pedigrees the association of insanity and suicide in a stock preceded by, or associated with, the existence of individuals possessing the melancholic, suspicious, brooding, self-centred, hypochondriacal temperament; and it is not uncommon for suicide of one or more members of the stock in successive generations to occur. Associated with these temperamental evidences of degeneracy of a stock may be chronic alcoholism, dipsomania, hysteria, hypochondriasis, exophthalmic goitre, neurasthenia, psychasthenia, migraine, *petit mal*, or neuroses of an epileptic character, often unrecognised, because not manifesting fits of the major form of the disease. In searching for the neuropathic tendency there are, therefore, many possibilities of missing the inborn factor of a neurosis or psychosis though a careful inquiry be made, even when aided by intelligent co-operation on the part of the friends.

*The Investigation of Relatives in the London County Asylums.*

I will now pass on to a summary of the work which has been done in the Pathological Laboratory on heredity in relation to



insanity. Four years ago I initiated a card system of relatives who are at present, or have been, in the London County asylums. The reason for doing so was to see if the anatomical features of the brain—the organ of mind—showed, like the physiognomy, features of resemblance in the fissures. Dr. Edgar Schuster has carefully examined and reported on the brains of a mother and daughter and of two brothers, and in a long and valuable communication has demonstrated the many points of similarity that exist. Since there is a correlation of structure and function throughout Nature, we may presume that this affords an indication of a resemblance in the raw material of mentality in members of the same family.

*Table showing Number of Cases reported from each Asylum.*

Asylum.	Died.		Dis-charged.		Trans-ferred.		Resident.		Total.		Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M. and F.
Banstead . . .	63	55	30	40	5	3	74	66	172	164	336
Bexley . . .	48	61	39	47	7	8	117	113	211	229	440
Cane Hill . . .	37	31	15	19	11	7	52	108	115	165	280
Claybury . . .	55	67	38	57	10	17	81	125	184	266	450
Colney Hatch . . .	93	88	57	71	4	7	103	142	257	308	565
Hanwell . . .	51	48	34	60	7	5	63	136	155	249	404
Horton . . .	39	27	21	27	10	8	83	101	153	163	316
Long Grove . . .	12	9	25	33	3	5	64	88	104	135	239
The Manor . . .	—	13	—	11	—	2	1	44	1	70	71
The Colony . . .	2	—	1	—	3	—	9	2	15	2	17
Total . . .	400	399	260	365	60	62	647	925	1367	1751	3118

*Table showing Proportion of Deaths and Recoveries amongst "Relative" Cases.*

	Discharged.	Transferred.	Died.	Resident.	Total.
Males . . .	260 = 19'0 per cent.	60 = 4'4 per cent.	400 = 29'2 per cent.	647 = 47'3 per cent.	1367
Females . . .	365 = 20'8 per cent.	62 = 3'5 per cent.	399 = 22'7 per cent.	925 = 52'8 per cent.	1751
Total . . .	625 = 20'0 per cent.	122 = 3'9 per cent.	799 = 25'6 per cent.	1572 = 50'4 per cent.	3118

From a few hundred cases at the commencement of the inquiry the list has rapidly increased until it has now reached 3,118 cases. This has involved a vast amount of work, and I wish to express my indebtedness to all the superintendents and medical officers, to the Clerk of the Asylums Committee and his staff, and to my assistants, especially Mr. Mann, for the assistance they have afforded me in this inquiry. It would take far too long a time to give more than a summary of the results obtained. There is yet a good deal to be done, but I think the following conclusions may be arrived at :

The 3,118 cases are made up from 1,450 families. At the present time in the London County asylums there are 725 so closely related as parents and offspring, brothers and sisters. *A priori*, this, to my mind, is striking proof of the importance of heredity in relation to insanity, for we cannot suppose that 20,000 people of the four and a half millions of people in the County of London brought together from some random cause would show such a large number closely related as 3·6 *per cent*. The large number of cases from this asylum probably represents the proper numbers in the other asylums, although it may be remarked that at Colney Hatch all the Jews are housed, and the number of relations among the Jews is proportionally considerably in excess of the Christian population, in spite of the fact that they are mostly aliens. There can be no doubt that the Jewish race is more liable to neurasthenia, and the neuropathic inheritance is more commonly met with than among Christians.

*Comparative Statistics of Heredity in Asylum and Hospital Cases.*

My late house physician, Dr. Thomas, carefully investigated and compiled the pedigrees from thirty-two of my hospital patients admitted for various diseases. There were in these pedigrees 1,000 living representatives and 250 died ; there were eight who had been in asylums, and in eight others fits were chronicled. Two of the pedigrees furnished nearly all the cases of insanity and epilepsy, but these two patients were suffering from nervous disease. One was a patient suffering from neurasthenia, and in the pedigree there were members who suffered from epilepsy, migraine, insanity, hysteria, deaf-mutism and imbecility, significant of a neuropathic taint in the

ancestral stocks ; and the other was a patient suffering from exophthalmic goitre, and there were several neuropathic members in this stock. I have ascertained that a far greater number would be found in the stocks of any thirty-two insane patients.

*Analysis of 3,118 Related Cases (Instances of Two of a Family Insane).*

	Pairs.	Cases.
Mother and daughter . . . . .	157	314
Mother and son . . . . .	96	192
Father and daughter . . . . .	103	206
Father and son . . . . .	78	156
Brothers and sisters . . . . .	212	424
Two sisters . . . . .	211	422
Two brothers . . . . .	140	280
Husband and wife . . . . .	69	138
Offspring and grandparents . . . . .	24	48
Other relationships, collaterals, etc. . . . .	186	372
<b>Total</b> . . . . .	<b>1276</b>	<b>2552</b>
142 instances of 3 of a family insane . . . . .		426
24 " 4 " " . . . . .		96
5 " 5 " " . . . . .		25
2 " 6 " " . . . . .		12
1 instance of 7 " " . . . . .		7
<b>Total</b> . . . . .		<b>3118</b>

Total—3118 cases made up from 1450 families.

They show the following facts :

(1) In the insane offspring of insane parents daughters are much more numerous than sons.

(2) Amongst insane members of the same family (brothers and sisters) sisters are more numerous than brothers.

This fact may be correlated with the fact that more women are in asylums than men. About one-half of the people in the London asylums at the present time have, according to an admirably lucid report of the Clerk to the Asylums Committee, been resident more than ten years. The silting up in the London asylums at the rate of 125 to 200 per annum is largely due to women. There are several reasons for this: general paralysis, which is a fatal disease, is three times more frequent in men than in women; the recoveries in women do not bear the same proportion as in men. Now, why should women be

more liable to become insane than men? I will briefly summarise the causes which, in my opinion, are operative:—

The physiological emergencies connected with reproduction—*i.e.*, the menstrual periods, child-bearing, and the cessation of the period of reproduction, the climacterium; moreover, there is a more unstable mental equilibrium in women. I would also add as an important, and perhaps the only *cause* in many instances—the enforced suppression by modern social conditions of the reproductive functions and the maternal instincts in women of an emotional temperament and mental instability.

*Anticipation or Antedating.*

Dr. Maudsley has observed that Nature tends to mend or end a degenerate stock. Now, how could Nature best end or mend a degenerate stock? By segregating in a relatively few germs all the unsound elements, leaving the others free—as it were, a crystallisation out of the diseased elements. What would this do? you may ask. Well, it would make some of the offspring so weak by intensifying the disease and bringing it on at an earlier age that they would, if left to Nature's process of elimination, be killed off early, or unfitted for propagation by being brought into the asylums in adolescence. This was termed by Darwin "antedating" or "anticipation," and I have found that there is a signal tendency in the insane offspring of insane parents for the insanity to occur at an earlier age and in a more intense form in a large proportion of cases; for the form of insanity is usually either congenital imbecility or the primary dementia of adolescence, which generally is an incurable disease. This is statistically shown in the figures regarding the age at the time of first attack in the insane offspring of insane parents. You will observe that nearly 50 *per cent.* of these insane offspring had their first attack of insanity at or before the age of twenty-five, and whereas in the case of the insane parents advancing age apparently brings greater liability to insanity, in the case of offspring, with advancing age the liability to insanity tends rapidly to diminish. Now, besides the fact that this shows Nature's 'method of eliminating unsound elements of a stock, it has another important bearing, for it shows that after the age of twenty-five there is a greatly decreas-

ing liability of the offspring of insane parents to become insane, and therefore on the question of advising marriage of the offspring of an insane parent this is of great importance. Sir George Savage recently said in his presidential address that this statistical proof of mine accorded with his own experience, and that if an individual who had such an hereditary taint had passed the age of twenty-five, and never previously shown any signs, he would probably be free, and he would offer no objection to marriage.

Pedigrees and statistical data relating to antedating appear to show an intensification and anticipation by a coalescence or crystallisation out of the unsound germinal determinants into a few of the offspring, leaving the germ-plasm of the others free. This would not only purify the stock by segregation, but the diseased offspring would be unfit for the struggle for existence and propagation. In putting forward this theory of coalescence of similar diseased germinal determinants, I may mention in support of it a statement made by Galton in his great work on natural inheritance: "In the process of transmission by inheritance elements derived from the same ancestor are apt to appear in large groups, just as if they had clung together in the pre-embryonic stage, as perhaps they did."

*Statistical Data relating to Inheritance and Insanity, especially in Relation to Anticipation.*

From an investigation of the age at the time of first attack in 508 pairs of parent and offspring (from the records of 464 insane parents of 500 insane offspring) the following table has been compiled. The figures denote the percentage of cases whose first attack occurred within the given age-periods.

Age-periods.	Father.	Offspring.	Mother.	Offspring.	
Under 20 years .	1'4	26'2	0'6	27'8	
20-24 years .	0'4	18'0	3'4	15'7	Adoles- cence.
25-29 " .	1'4	18'0	4'4	18'2	
30-34 " .	9'6	13'0	7'8	13'4	
35-39 " .	11'5	7'3	9'2	10'0	Involutional period.
40-44 " .	9'2	6'4	10'3	5'8	
45-49 " .	14'3	6'0	12'0	3'7	
50-54 " .	17'5	0'9	12'3	2'4	
55-59 " .	13'8	3'7	14'0	1'7	
60-64 " .	10'1	—	11'6	1'3	
65-69 " .	5'0	—	8'8	—	
70-74 " .	4'6	0'4	3'1	—	
75-79 " .	0'4	—	1'3	—	
80 .	0'4	—	0'6	—	

These figures are shown graphically in the following diagrams (Fig. 3), the abscissæ representing the age-periods and the ordinates the percentage of cases whose age at the time of first attack falls within the given periods. They clearly show the signal tendency to the occurrence of most of the insanity in the offspring of insane parents at a much earlier age than in the parent; that is to say, antedating or anticipation is the rule.

Investigating the ages at the time of first attack in the insane offspring of insane parents, I find in the following pairs that

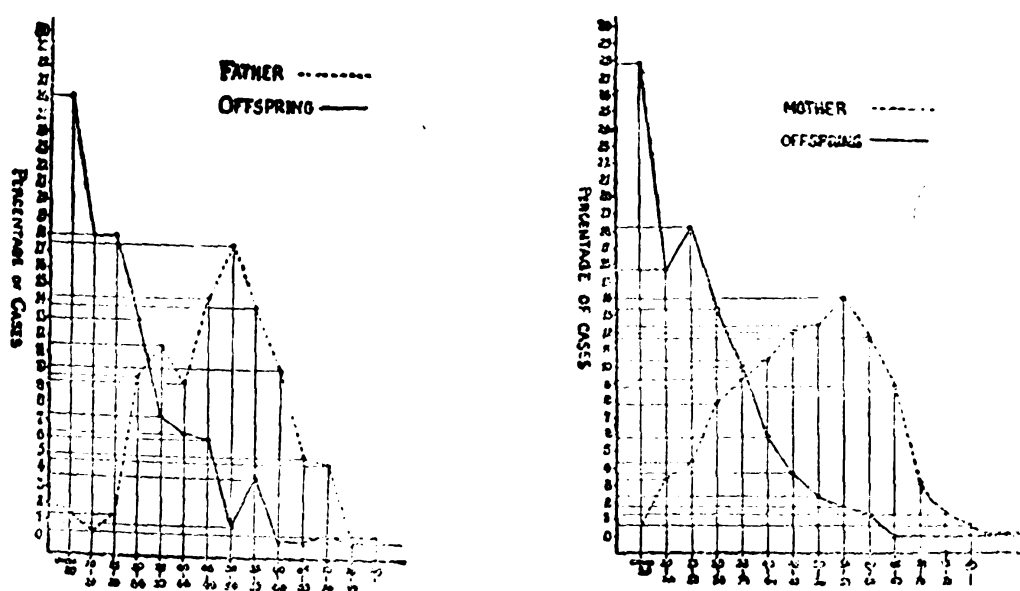


FIG. 3.—A comparison of these two curves shows a notable difference in the dotted line curves of the two parents. The curve of the mothers rises steadily and progressively from 20-55. The curve of the fathers does not commence to rise till after 25; there is a small peak at 35-39. This is the period when general paralysis is most likely to occur. But the main difference in the curves of fathers and mothers is due to the incidence of child-bearing, which causes the steady rise to the climacterium in the maternal curve.

239, or 47·8 *per cent.* out of 500 offspring had their first attack at or before the age of 25 :—

Mother—son	.	.	.	.	51 out of 118 offspring.
Mother—daughter	.	.	.	.	81 „ 170 „
Father—son	.	.	.	.	45 „ 90 „
Father—daughter	.	.	.	.	62 „ 122 „
Total	.				239 out of 500 offspring = 47·8 <i>per cent.</i>

The following table shows the average age at the time of first attack in the parent and offspring :

	Parent.	Offspring.
120 pairs mother—daughter . . . . .	49'7	29'3
67 „ mother—son . . . . .	50'2	30'7
76 „ father—daughter . . . . .	50'1	30'4
51 „ father—son . . . . .	51'9	33'1
79 parents, 133 offspring in families with more than two insane . . . . .	47'7	28'7
Total, 393 parents, 427 offspring . . . . .	49'7	30'0

In addition there were 71 parents whose average age was 49 at the time of the first attack who were associated with imbecile offspring.

Lastly, I find that in 299, or 58·8 *per cent.*, of the 508 pairs of insane parent and offspring, the first attack in the offspring occurred at an age twenty or more years earlier than in the parent; of these 299 instances 73 of the offspring were imbeciles.

### *Collateral Heredity.*

When collateral heredity is studied the same signal tendency to occurrence of anticipation or antedating is shown, as the following tables and curves prove.

The subjoined table is compiled from 193 pairs of uncles and aunts with nieces and nephews in which only collateral heredity is manifested, and 231 pairs of uncles and aunts with nieces or nephews, in which are included those instances where one or both parents of the nieces and nephews are also insane. The figures denote the percentage of cases whose first attack occurred within the given age-periods.

Age-periods.	Collateral only.		Collateral and direct.	
	Uncle or aunt.	Niece or nephew.	Uncle or aunt.	Niece or nephew.
Under 20 years . . . . .	5'2	20'7	5'2	25'5
20-24 years . . . . .	3'1	19'2	3'4	17'7
25-29 „ . . . . .	6'2	18'6	7'8	19'0
30-34 „ . . . . .	12'9	17'1	14'3	15'1
35-39 „ . . . . .	11'9	12'4	12'1	11'2
40-44 „ . . . . .	11'3	5'7	10'4	4'3
45-49 „ . . . . .	12'4	2'1	12'1	2'6
50-54 „ . . . . .	14'5	2'1	12'1	1'7
55-59 „ . . . . .	7'7	1'5	8'6	2'1
60-64 „ . . . . .	8'8	—	8'2	—
65-69 „ . . . . .	1'5	0'5	1'7	0'4
70-74 „ . . . . .	1'0	—	1'3	—
75-79 „ . . . . .	3'1	—	2'6	—
80 „ . . . . .	—	—	—	—

Adoles-  
cence.

Involuntal  
period.

These figures are shown graphically in the following diagrams, the abscissæ representing the age-periods and the ordinates the percentage of cases whose age at the time of first attack falls within the given periods (Fig. 4).

Of the insane nieces and nephews of insane uncles and aunts, 103 out of 208, or 49.5 per cent., had their first attack at or before the age of twenty-five :

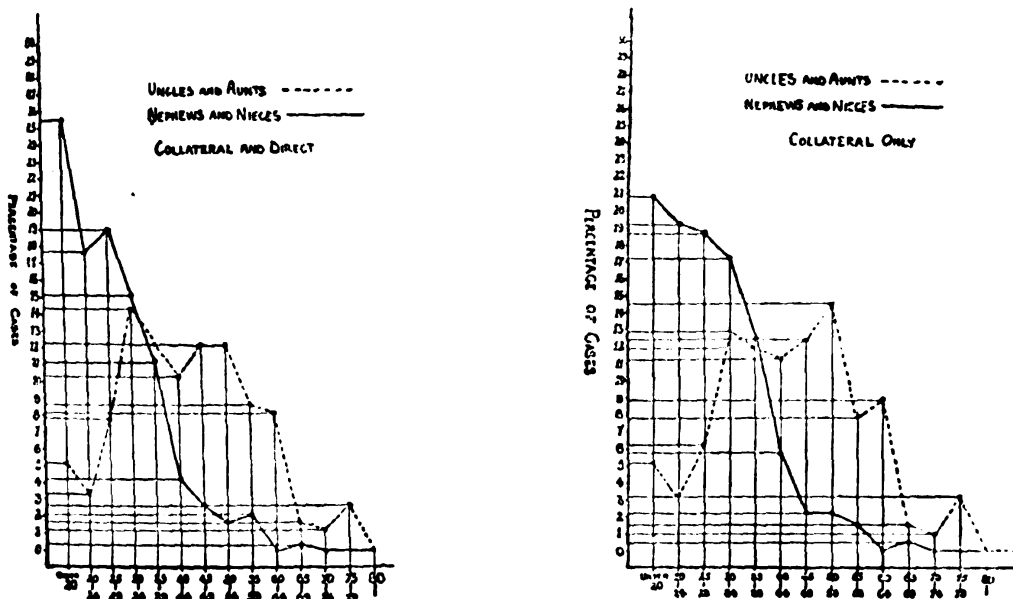


FIG. 4.—A comparison of these two curves shows that the tendency to anticipation or antedating is less marked when there is only collateral inheritance; it will be observed that the offspring curve slopes very gradually in comparison with that of parent and offspring, as well as with that of collateral and direct.

Uncle—nephew or niece	.	51	out of 93
Aunt—nephew or niece	.	52	" 115
Total	.	103	" 208 = 49.5 per cent.

#### *Study of the Neuropathic Inheritance by Pedigrees.*

I have already published in my presidential address to the Neurological Section some pedigrees illustrating the points of my argument regarding anticipation (<sup>1</sup>), but I propose to show a few of these and other new ones; moreover, Dr. Hill Wilson White will later refer to twenty-four pedigrees which he has most carefully investigated.



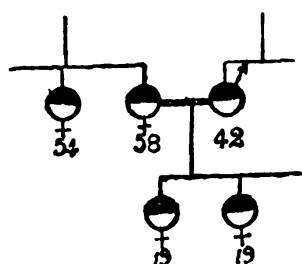
*Some Family Records showing Anticipation.*

FIG. 5.

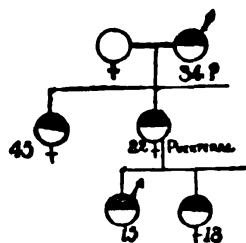


FIG. 6.

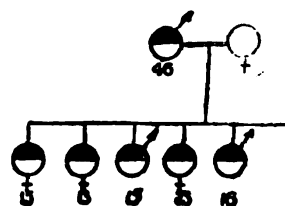


FIG. 7.

FIGS. 5, 6 and 7.—Three pedigrees to illustrate "antedating"; the onset of insanity in the offspring is shown to occur at a much earlier age than in the parents. These pedigrees also illustrate extreme cases of hereditary transmission of the neuropathic taint; as a rule, not more than one insane offspring of an insane parent occurs in four or five. The occurrence of insanity in all the children is probably due to the fact that there is a double insane inheritance in all these instances, although it is only shown in one completely, and one partially.

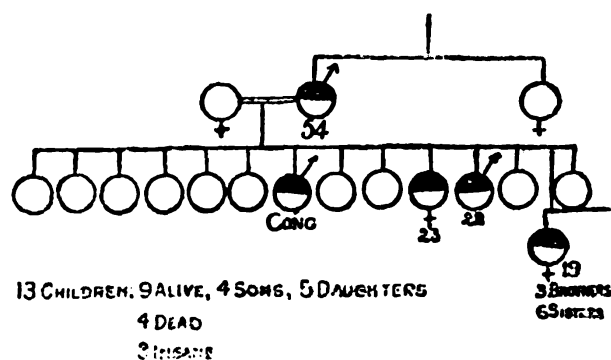


FIG. 8.—A. B—, an alien Jew, æt. 54, was admitted to an asylum for the first time, suffering with involuntional melancholia; he has a sister who has not been in an asylum, but, as events turned out, bore the latent seeds of insanity. The man is married to a healthy woman, who bore him a large family; the first six are quite healthy, then comes a congenital imbecile epileptic (cong.), then two healthy children, followed by a daughter who became insane at age of 23, then a son insane at age of 22, and lastly, two children who are up to the present free from any taint. The sister of A. B— is married, and has a family of ten—seven girls and three boys; one of the females was admitted to the asylum at the age of 19, and since this pedigree was constructed a brother of hers has been admitted, aged 24. Half-black circles are insane. This pedigree is instructive: it shows direct and collateral heredity; it also shows remarkably well the signal tendency to the occurrence of insanity at an early age in the children of an insane and potentially insane parent.

Professor Karl Pearson, writing to *Nature*, November 21st, 1912, "On an Apparent Fallacy in the Statistical Treatment of 'Antedating' in the Inheritance of Pathological Conditions,"

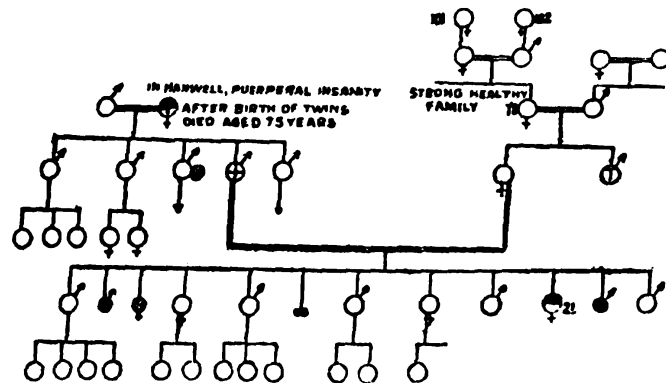


FIG. 9.—In the above pedigree is shown the mating of a female descendant of a strong healthy family with longevity to the drunken son of a drunken mother, who also had an attack of puerperal insanity. Of the children from this marriage three died young; the one affected member became insane in adolescence and has died of tuberculosis in the asylum (half-black circle), whilst the remainder are apparently healthy, and those who are married have healthy children.

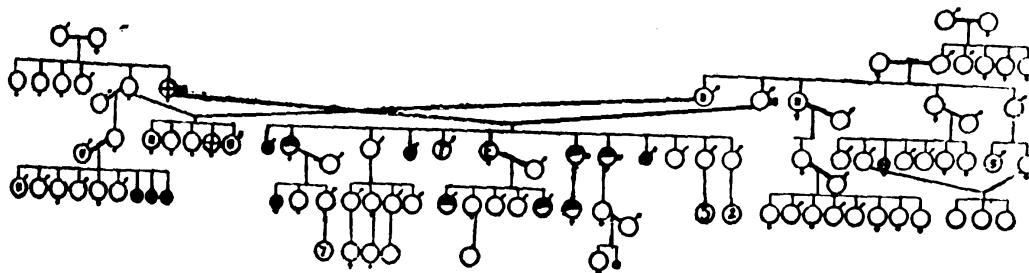


FIG. 10.—This pedigree is of interest in showing the marriage of two brothers with two sisters. In the first instance the male suffered with heart affection, which was transmitted to the offspring. In the second case the female suffered from cirrhosis of the liver and paraplegia, and was probably alcoholic and possibly syphilitic. The result was three insane and one epileptic offspring. From the first insane daughter the issue was apparently unaffected; but from the next daughter, who had masked epilepsy, of five children born two were insane. The next two insane daughters each gave birth to an illegitimate child by the same father; one of these children became insane at adolescence, whereas the other has married and has an apparently healthy child. H denotes heart affection. Half-black circles, insanity.

criticises on mathematical grounds the evidence of anticipation. I do not feel myself competent to reply to the opinion of such an eminent authority on mathematics applied to biometrics, but it does not militate against my conclusions, nor explain

away the fact that a large proportion of the insane offspring of insane parents are affected with imbecility or adolescent insanity; for granting the assumption that there is no antedating at all, we might rightly expect the ages at onset of the insane offspring of insane parents to be comparable with

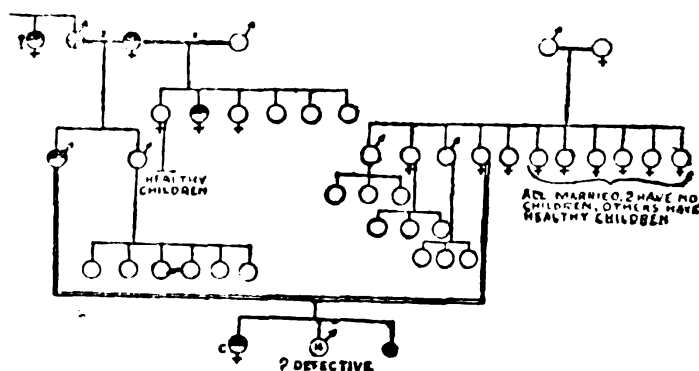


FIG. 11.—This pedigree commences with an insane woman who first marries an apparently healthy man, and of their six children one becomes insane. She next marries a drunkard whose sister is reported to be insane. The result of this marriage was a weak-minded son, who came into the asylum at the age of 42, and an apparently normal son, who marries and has healthy children. The insane son married a woman coming from a good stock, with the result that their first-born daughter is an imbecile, and the second born, a son, is mentally defective.

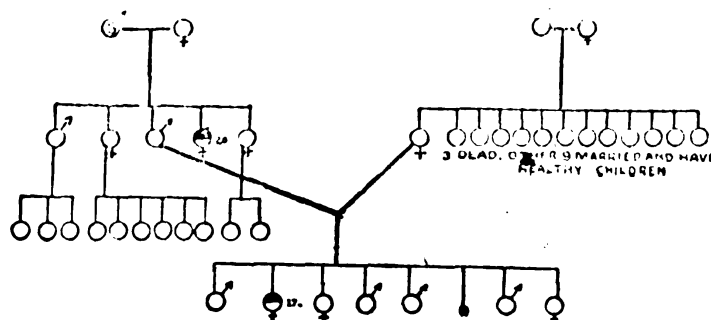


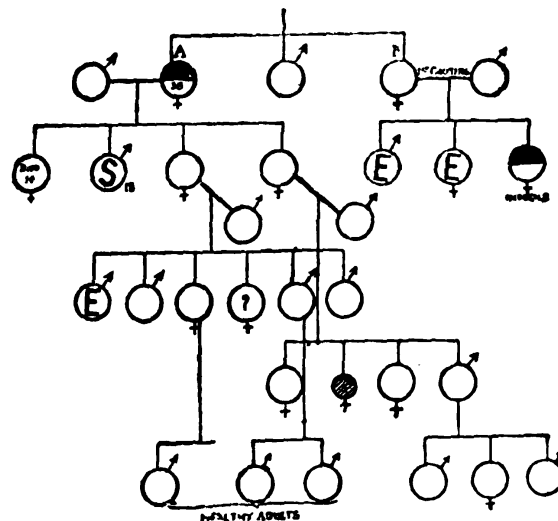
FIG. 12.—This pedigree shows the hereditary taint, commencing with suicide (s) in the grandfather and insanity in the next two generations; in each generation the affected member was cut off by adolescent insanity.

the ages at onset of all the admissions to the asylums during the same period. This is by no means the case, for amongst the insane offspring there is a far greater proportion affected in early life.

I may say that the examination of pedigrees first led me to regard antedating as Nature's method for eliminating the unfit,

and the pedigrees, which are numerous, that I have since obtained all strengthen the opinion. I hope shortly to publish a large number of these pedigrees and further elaborated statistics on the question of antedating, obtained from a further collection of data since the above figures were obtained.

Professor Pearson in one way does not deny the fact that there is a tendency for an insane stock to be either ended or mended, which is really an important practical point we have to decide, for he says: "In the case of insanity is the man or woman who develops insanity at an early age as likely to become a parent as one who develops it at a later age? I



**FIG. 13.**—This pedigree shows the result of marriage of first cousins, in both of whom there was a latent neuropathic taint. The family consisted of three individuals—two sisters, A and B, and an elder brother, who was married but had no family. B married a first cousin, and although neither of them were insane nor epileptic, yet they had two children epileptic and one a congenital imbecile; this terminated the stock on that side. That there was latent insanity was shown by the result of the marriage and the fact that a sister became insane. A, however, married into a healthy, virile stock; she became insane at the age of 38. Although living many years after she never recovered; the exciting cause was the death of a son by suicide (s) at the age of 18. There were two daughters who became mothers of families; the eldest son of one suffered with masked epilepsy, but no other evidence of neuropathy was shown in this generation. The taint seems to have disappeared, inasmuch as there are healthy, grown-up members of the fourth generation.

think there is not a doubt as to the answer to be given ; those who become insane before the age of twenty-five, even if they recover, are far less likely to become parents than those who become insane at later ages ; many, indeed, of them, con-

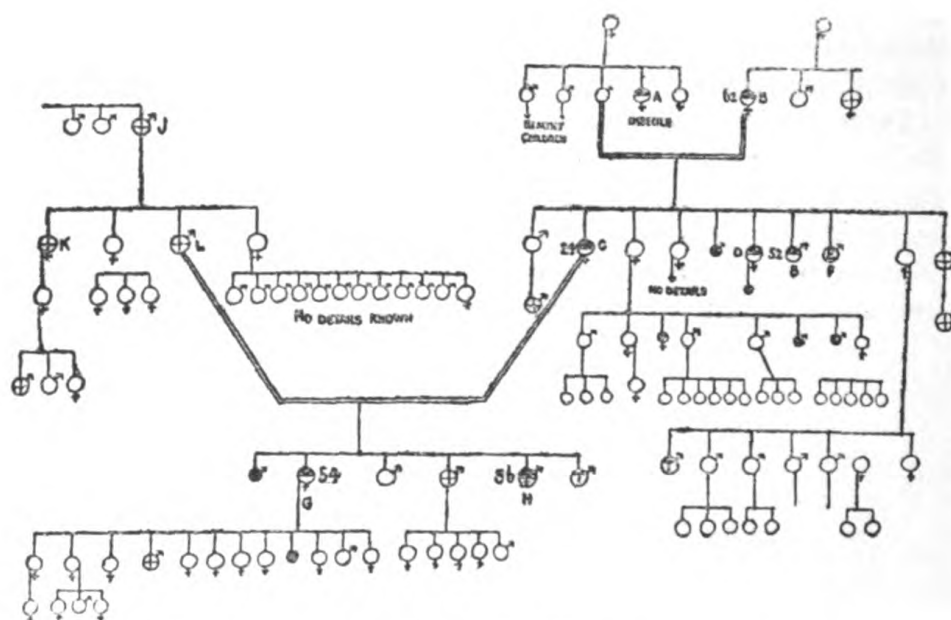


FIG. 14.—Pedigree showing the apparent elimination of the unsound elements in a stock with dual insane inheritance. A, an imbecile, but was never put away. B became insane at the age of 62; melancholia; in Colney Hatch Asylum for nine months, but eventually died in Caterham Asylum. C became insane at the age of 24 (St. Luke's Asylum) after the birth of her first child, which died in infancy; she was discharged after five months; her next attack occurred at the age of 38 (when suckling her last child), when she was in Hanwell for twenty months with acute mania; at the age of 43 she was admitted to Colney Hatch and died there seventeen months later. D, very peculiar and eccentric, but was never put away; she married twice, and by her first husband had one child which died in infancy from convulsions, by her second husband no children; she died between 40 and 50 years; described by her relatives as insane. E became insane at the age of 52, acute mania, and died after three days' residence in Hanwell; had been in feeble health for years and had suffered from lead colic on two occasions. F, epileptic fits from infancy; admitted to Hanwell Asylum at the age of 28; after seventeen years' residence was transferred to Glamorgan County Asylum. G became insane at the climacteric period; admitted to Cane Hill at the age of 54; chronic mania; teetotaler; her children and grandchildren, with the exception of one son, aged 26, who "drinks and bets," are not affected. H has had delirium tremens; married an alcoholic, now in Islington Infirmary; no children; first certified at the age of 36 and has been in and out of asylums ever since; has been in Claybury Asylum five times, and other asylums besides; in features he is supposed to resemble his paternal grandfather, but in versatility and humour apparently resembles his maternal grandfather, who was a famous clown. J, K, L are reported to be alcoholic, but in spite of this they all lived to good ages. J died at the age of 78; K is still living, over 70 years of age; and L died at the age of 74. Longevity is a characteristic of this stock.

sidering the high death-rate of the insane, will die before they could become parents of families."

Mr. Nettleship has shown that antedating occurs in other diseases, notably diabetes, and it was he who called my attention to the probability of my being able to show antedating and insanity, because I remarked that I seldom found insanity

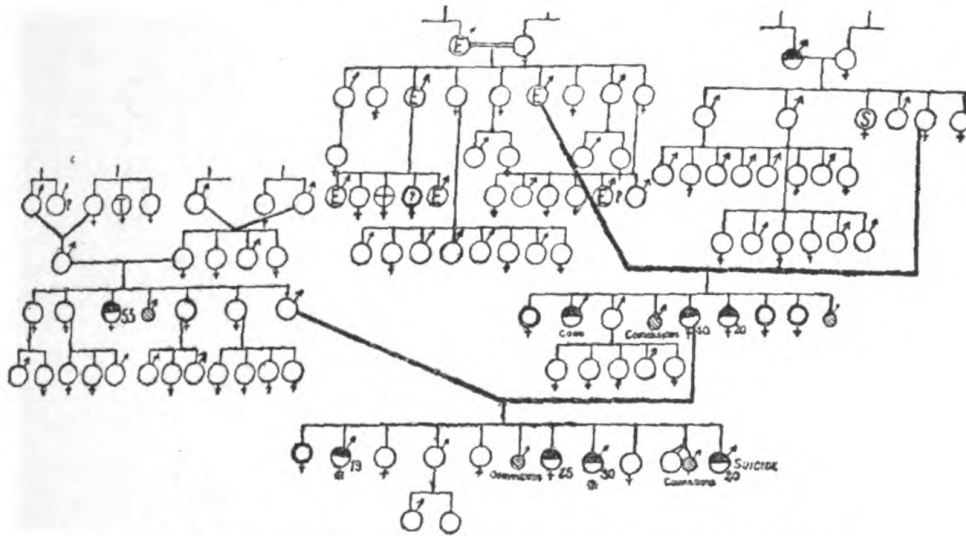


FIG. 15.—A very comprehensive and interesting pedigree obtained for me by Dr. Wilson White, showing the result of marriage of a nearly sound stock in which the temperament was, generally speaking, of the sanguine type; there was only one member insane at fifty-five, she was unmarried; her four sisters, who were all married, had some healthy, grown-up children. The brother himself, perfectly sane and healthy, married a woman descended from stocks in one of which there were many members suffering with epilepsy (E); indeed, her father and her grandfather suffered with it. On the maternal side there was suicide (S) of an aunt and insanity of a grandfather: most of the members of this stock were of a melancholy, brooding temperament. The result of the mating of these two neuropathic stocks is shown. There were nine children—of which three, marked with deep black-rimmed circles, suffered from some form of neurosis; a male congenital imbecile; a healthy male who has five healthy children; a child who died in early life of convulsions; the patient's mother, who became insane at the age of forty; a female who became insane at the age of twenty; two females also suffered with some form of neurosis; lastly, a male who died in early infancy. The next generation shows the result of mating this unsound stock with an almost healthy, sound stock. There are not as many unsound members as in the last generation, and we observe that the four members that became insane at the ages of nineteen, twenty-five, thirty and twenty, all had their first attack at a much earlier age than their mother: one of these committed suicide and two were found dead. This pedigree illustrates well the signal tendency to the occurrence of antedating. The sound members of the stock apparently inherited their temperament from the father's side, and the one member that married has quite healthy children; this looks as if the unsound elements of this degenerate stock had been cleared out by segregation of the unsound germinal determinants, causing intensification of the disease and occurrence of the onset at an early age, thus preventing propagation.

occurring in pedigrees beyond three generations; there was a tendency to elimination of the unsound members by early death.

Erasmus Darwin, the grandfather of Charles Darwin and Francis Galton, said: "As many families become gradually extinct by consumption, epilepsy, mania, it is often hazardous to marry an heiress, as she is often the last of a diseased family." In a letter to the father of Charles Darwin, probably prompted

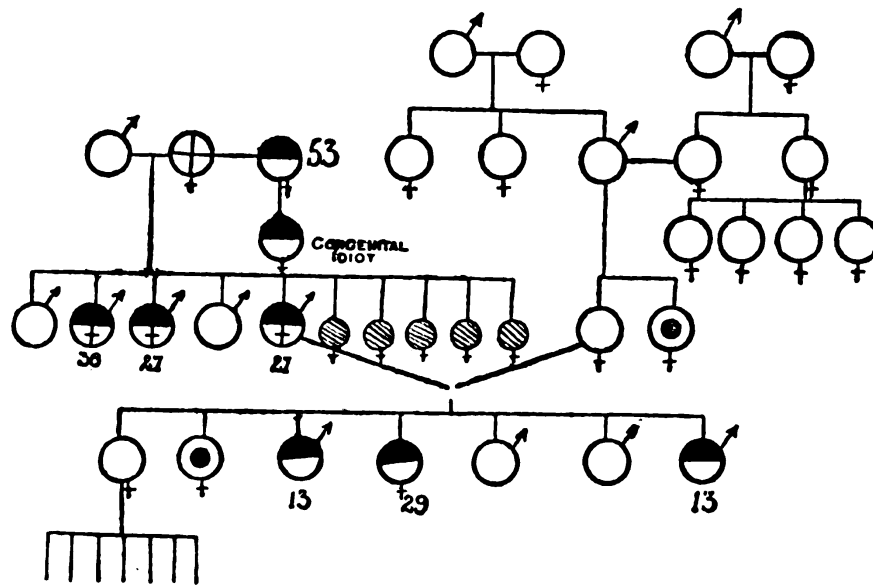


FIG. 16.—A family of drunken and insane people. The figures with half-black circles are insane; the same with the cross indicate drink and insanity; the circles with only a cross indicate excessive drinking. The two stocks show a marked difference; one side, the maternal, is practically free from any taint; almost every member of the paternal stock is unsound. The degeneracy commenced with a drunken woman, whose sister died, aged fifty-three, in Colney Hatch Asylum, where she had been twenty years; she had a congenital imbecile daughter in Leavesden. The result of mating a sound individual with a drunken woman with insane predisposition is shown in the members of the family born: a son healthy, then two alcoholic sons who were insane at the ages of thirty-six and twenty-seven, then a healthy son, then another alcoholic son, who also was insane at the age of twenty-seven; finally, five daughters who died in early life, probably through the neglect of a drunken mother, indicated by small, shaded, circular figures. One member of this drunken and insane family married into a healthy sound stock. Seven children were the fruit of this marriage; of these, two sons and a daughter were normal, and three were insane, two of them having become insane at the age of thirteen. The clear circle with a black centre indicates bodily disease. I used to give this pedigree as an instance of drink causing insanity, but after the establishment of the card system of relatives I found the notes of the sister of the drunken grandmother; she was an inmate of Colney Hatch for twenty years. It sometimes happens that the one is taken and the other left, and it would have been a benefit to society if the drunken progenitor of this degenerate stock had been taken.

by the fact that one of his sons committed suicide, he wrote: "I know many families who had insanity on one side, and the children, now old people, have had no sign of it. If it were otherwise there would not be a family in the kingdom without epileptic, gouty, or insane people in it." Francis Galton, his other distinguished grandson by his second wife, established the law of filial regression, or the tendency to re-establish the normal average of the race. It is remarkable how this progenitor of our two greatest biologists anticipated the epoch-making discoveries of his most illustrious grandsons.

Our President has himself found in his large practice that there is a tendency for the offspring of insane parents to become insane at an earlier age, and in the question of marriage it is of signal importance.

I shall be glad to hear the experiences of other members of the Section on this point concerning heredity and insanity.

*Single compared with Dual Neuropathic Inheritance.*

Every pedigree is a study in itself, and occupies a whole book if systematically carried out as regards inheritance of characters, and the classification of the same is a matter of considerable difficulty. We have not enough systematic pedigrees yet to form precise data and conclusions upon, but I may be permitted to refer to indications from the examination of pedigrees of three generations which I have obtained myself, and combined with those obtained by Dr. Wilson White, Dr. Cribb, and Dr. Daniel. I will divide them into two groups: (1) Those with a double pathological inheritance—that is, both ancestral stocks show insanity, feeble-mindedness, drunkenness, epilepsy, suicide, or nervous disease of various kinds, direct or collateral within two generations; and (2) those with a pathological inheritance on one side only.

(1) The analysis of families with a double insane inheritance, represented by insanity, suicide, nervous disease, in both paternal and maternal antecedents, direct or collateral, within two generations:

*Eighteen Families Examined.*

Number of children.	Number died young.	Insane, suicide, nervous disease.	Apparently normal.
116	16	39	61
39 per cent. of the offspring reaching adult age were affected.			

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(2) The analysis of families in which there was an insane inheritance on one side only :—

*Ninety Families Examined.*

Number of children.	Number died young.	Insane, suicide, nervous disease.	Apparently normal.
384	40	33	311

9.6 per cent. of the offspring reaching adult age were affected.

The conclusion which may be drawn is that a child born of a dual neuropathic inheritance stands on an average a chance of being insane four times as great as where only one stock is infected. This, however, applies to the general average, and not to individual cases.

*Propagation of the Insane in relation to Hereditary Transmission.*

As a leading article in the *British Medical Journal* of May 11th, 1912, refers to this question of my investigations upon anticipation tending to the ending or mending of a degenerate stock being used as an argument against measures being taken to prevent the propagation of the unfit, I particularly desire to impress upon my audience the fact that I have always laid a great stress upon the necessity of *segregating congenital imbeciles* now that Nature by man's aid does not kill them off as formerly. Moreover, it is highly desirable to follow up those members of the family who are sane, and particularly those who are discharged as cured, in order to see whether Nature has really mended that particular degenerate stock.

One of the great arguments advanced for sterilisation has been that recurrent cases of insanity breed lunatics in the intervals of readmissions to the asylums. I have no doubt this is the case. But before Parliament would even consider such a procedure justifiable it would require the strongest and soundest evidence that life segregation or sterilisation would appreciably diminish the numbers of the insane. Single instances are attractive as copy for newspapers, and may serve as object-lessons to the public, but the Legislature will require comprehensive data and statistics. In the following table are some preliminary data relating to this question.

The following figures represent an analysis of the female admissions to three asylums during the year 1911 :

Hanwell	.	164 female admissions	.	32 recurrent cases.
Claybury	.	259 " "	.	64 " "
Cane Hill	.	219 " "	.	52 " "
Total	.	642 " "	.	148 " "

Further investigating these recurrent cases, the following figures are obtained :

	Hanwell.	Claybury.	Cane Hill.
Single . . . . .	10	23	21
Married, but no children born during lucid intervals. Involuntal insanities, etc. . . . .	10	25	13
Married, children born during lucid intervals . . . . .	10	10	12
No history obtainable. . . . .	2	6	6
Total . . . . .	32	64	52

Of 642 female admissions, 148 were recurrent cases, of whom thirty-two (21 *per cent.*) had children between their respective dates of admission. Dr. Spark has forwarded me a list of thirty-three cases (18 *per cent.*) from a total of 185 recurrent female cases examined who had also given birth to children during their lucid intervals.

The inference that can be drawn is that about one-fifth of the recurrent cases, or approximately one-twentieth of the female admissions, have children after their first attack of insanity, and of thirty-one such cases examined, seventy-three children were born after the first attack of insanity in the parent. A number of these cases were puerperal insanity. I am unable to give the exact figures as to the fate of these children, but a good proportion of them died in infancy, and the majority of them would be too young for us to decide which might become insane.

Recurrent insanity and epilepsy, with which it is closely allied, in relation to hereditary transmission, offer one of the most important problems for scientific investigation by complete family histories and construction of pedigrees, and I can conceive no more important work on the relation of heredity to insanity than the following up systematically of the history of children born in the sane intervals of cases admitted several times to the asylums.

From the statistics of relatives a computation has been made of the proportion of offspring who were born after the first

attack of insanity in the parent. The figures are as follows: 590 pairs of parent and offspring investigated from 529 insane parents with 581 insane offspring.

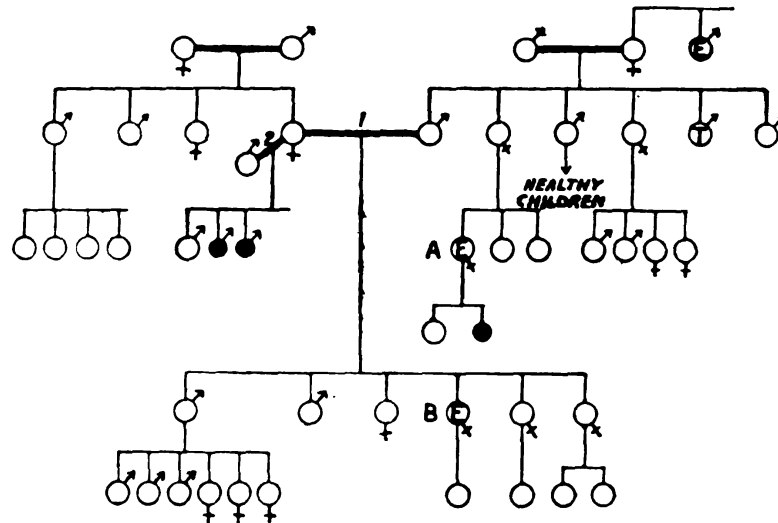


FIG. 17.—This pedigree is of interest in showing the appearance of epilepsy in two members of a stock after it had missed a generation. All other members of the stock were mentally unaffected. One of the offspring of one of the affected members (A) died from injuries received while the mother was in a fit; while the only child of the other affected member (B) was the result of seduction by her stepfather.

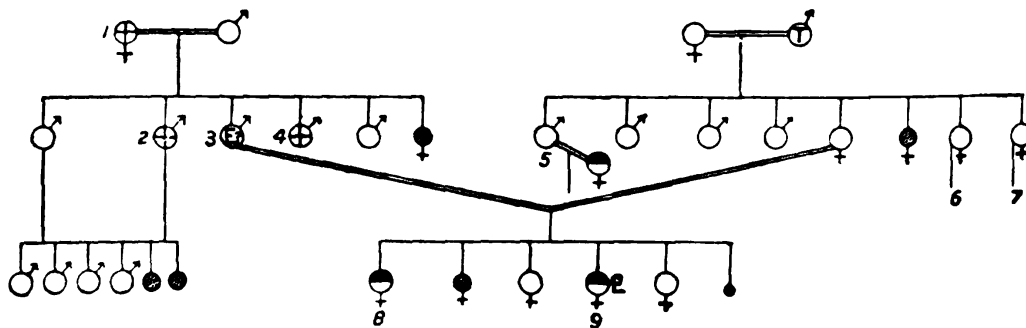


FIG. 18.—The above pedigree shows the intensification of the neuropathic taint in a stock with the elimination of the two affected members by adolescent insanity. No. 1, the grandmother, was alcoholic, and died at the age of 40. Of her children, Nos. 2, 3, and 4 were alcoholic, excitable, and violent. No. 3 "had stupors like No. 9," and eventually died from tuberculosis at the age of 36. His wife came from a comparatively good stock, as shown by the fact that Nos. 5, 6, and 7 have healthy children and grandchildren, in spite of the fact that the wife of No. 5, about twenty years ago, was a resident of Banstead Asylum for a period. Of the children of No. 3, No. 8, a girl, was certified at the age of 16, and died in Claybury Asylum from tuberculosis at the age of 21. No. 9, her sister, was subject to fits, and was admitted to Claybury Asylum at the age of 21, where she is still resident. The other two sisters are exceedingly nervous and emotional.

Mother and daughter, pairs	. . .	17	children born after first attack.
Mother and son	" . . .	9	" "
Father and daughter	" . . .	11	" "
Father and son	" . . .	9	" "
Total	. . .	46	" "

Forty-six offspring out of 581 were born after the first attack of insanity in the parent—i.e., 7·9 per cent.

That is to say, in the case of 529 insane parents *the birth of only one-twelfth of their 581 insane children would have been prevented*

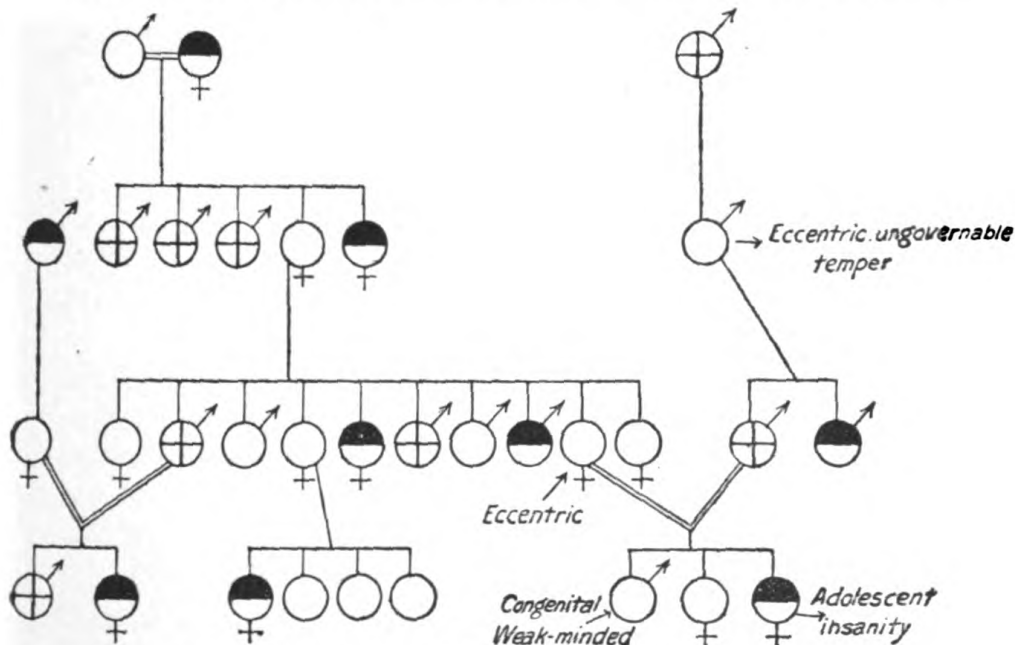


FIG. 19.—Pedigree of a well-to-do family with marked alcoholism (circles in quadrants) and insanity (half-black circles).

by sterilisation or life segregation of the parent after the first attack of insanity.

These figures refer to the offspring which become insane, but there are a large number of offspring which do not become insane, and these would be cut off if life segregation or sterilisation were adopted.

#### STATISTICS OF GENERAL PARALYSIS IN RELATIVES.

The incidence of general paralysis in families where *two* members have been in the London County asylums is as follows:

*Mother and son.*—96 families: 8 families in which general paralysis figured—in 1 the mother was affected, in 7 the son was affected, and in none were both affected.

*Mother and daughter.*—157 families: 3 families in which general paralysis figured—in 1 the mother was affected, in 1 the daughter was affected, and in 1 both were affected.

*Father and son.*—78 families: 13 families in which general paralysis figured—in 5 the father was affected, in 8 the son was affected, and in none were both affected.

*Father and daughter.*—103 families: 12 families in which general paralysis figured—in 10 the father was affected, in 1 the daughter was affected, and in 1 both were affected.

*Brothers.*—140 families: 32 families in which general paralysis figured—in 26 one brother only was affected, and in 6 both were affected.

*Sisters.*—211 families: 8 families in which general paralysis figured—none in which both were affected.

*Brother and sister.*—212 families: 18 families in which general paralysis figured—in 17 the brother was affected and in 1 the sister was affected.

*Grandparent and offspring.*—24 families: 1 family in which the grandparent was a general paralytic.

*Collateral pairs.*—186 families: 24 families in which general paralysis figured—in 2 families both male cousins were affected, in 2 families both uncle and nephew were affected, in 5 families one male cousin was affected, in 3 families the aunt alone was affected, in 6 families the uncle alone was affected, in 5 families the nephew alone was affected, in 1 family the niece alone was affected. As general paralysis is fatal within a year or two of admission, difficulties arise in regard to pairs of paralytics being known, unless one of the pair has been resident since the card system was initiated. Thus, to my knowledge, during the last fifteen years there have been three or four cases of husband and wife and several of father and son.

#### *The Neuropathic Inheritance in relation to General Paralysis.*

It is generally admitted that in the pedigrees of general paralysis of the insane, the "neuropathic taint" is not found to anything like the extent that it is in the pedigrees of patients suffering from neuroses, psychoses and feeble-mindedness. This is not surprising if we regard general paralysis as an organic disease due, like tabes, to the action of the syphilitic organism.

Our President, in his Lumleian Lectures,(?) emphasised this

fact that general paralysis is not associated with an hereditary taint to anything like the extent that other forms of insanity are. I have endeavoured to investigate this question by comparative statistics of the incidence of general paralysis occurring in the 3,118 relatives who have been admitted to the London County asylums, and the incidence in the admissions of the total population; also by comparison of deaths from general paralysis among these two classes of individuals, and I think my results bear out the premise that the neuropathic taint does not enter as a large factor in general paralysis. I will summarise my researches on this subject as shown in the sub-joined tables.

TABLE I.

*Incidence of General Paralysis amongst Residents in Asylum Population.  
1911 Report, Table E2.*

	Males.	Females.	Male and female.
Total population . . . .	8,591	11,475	20,066
General paralytics . . . .	334	128	462
Percentage . . . . .	3'9	1'1	2'3

*Incidence of General Paralysis amongst Resident Related Cases.*

	Males.	Females.	Male and female.
Total related cases . . . .	616	892	1,508
General paralytics . . . .	16	7	23
Percentage . . . . .	2'6	0'8	1'5

The above Table I shows that whereas in the total resident population of the London County asylums the proportion of female general paralysis patients to male general paralysis patients is 1'1 *per cent.* to 3'9 *per cent.*, among the resident population of relative cases numbering 1,508 it is 0'8 *per cent.* females to 2'6 *per cent.* males; there are therefore considerably fewer males and females *pro rata* among the relatives resident.

TABLE II.

*Incidence of General Paralysis amongst Total Deaths occurring in the London County Asylums during the last Five Years.*

	Males.	Females.	Males and Females.
Total deaths . . . . .	4,126	3,980	8,106
General paralytics . . . .	1,385	349	1,734
Percentage . . . . .	33'5	4'2	21'3

*Incidence of General Paralysis amongst Related Cases that have Died.*

	Males.	Females.	Males and Females.
Total deaths . . . . .	370	379	749
General paralytics . . . .	142	16	158
Percentage . . . . .	38'3	8'7	21'1

The above Table II shows that if we compare the number of deaths from general paralysis during the last five years in all the London County asylums we find 21·3 *per cent.* of the total deaths were in general paralytics. Our relative cards refer to 749 deaths, and of these, as Table II shows, there were 158 cases of general paralysis, a total death-rate of 21·1 *per cent.* Again, comparing the deaths from general paralysis in 2,000 *post-mortem* examinations at Claybury, I found 23·0 *per cent.* of the total died from general paralysis; the slight increase no doubt was due to diagnostic error during life.

You will no doubt be struck by the relatively fewer females and the larger number of males *pro rata* among the relatives compared with those of the total population. There is half the percentage of females, and 4 *per cent.* more males, although the total incidence is almost identically the same (21 *per cent.*). I would explain this as due to two causes:—

(1) The relatively fewer general paralytic cases occurring among the relatives is probably due to the fact that a considerable number of women admitted to the asylums suffering with general paralysis are derived from a class of female who is more likely to have suffered with syphilis than any other; they are euphemistically described as of no occupation. The prostitute either has no friends to visit her or she is disowned by her relatives, and therefore she is far less likely to appear in the relative cards.

The difference among the males is not so great, and may be of no consequence, or the slight increased incidence of general paralysis among the relative cases may indicate that the neuropathic taint does play a small part in the production of general paralysis amongst these cases. The slight increase may also be due to the comparatively large number of brothers affected.

I found 18·7 *per cent.* of pairs of brothers affected with general paralysis of the insane. Now it may be asked, Why should there be relatively such a high percentage of brothers affected, if the neuropathic tendency did not play an important part in the production of general paralysis? Its explanation is possible in three other ways.

Sir George Savage has always maintained the important influence of sexual excess; indeed, in his text-book he speaks of the general paralytic wife. I am of opinion that the ardent sexual temperament has much to do with the production of

both tabes and general paralysis. A temperament is even more likely to be inherited than the "neuropathic taint." If we admit, as we must, the possibility of the existence of such a temperament in two brothers, then we can explain the frequency of the incidence by a temperamental inheritance favouring the onset of general paralysis. But it is possible that two brothers might get syphilis from the same source; there is evidence indicating that there may be a specific virus for these parasymphilitic affections. Lastly, I would suggest as a cause of this greater liability of brothers to general paralysis the possibility of an inherited immunity hypersensibility to react to the specific organism of syphilis. In favour of this argument I advance the following premises:

The great majority of cases of general paralysis suffer with very mild primary and secondary symptoms; tertiary signs in the form of gummata are rarely met with, and I base this statement upon the *post-mortem* examination of over 500 general paralytics. The average time after infection is ten years, and it matters not whether the patient has been treated with mercury or not. Specific remedies, arsenic as well as mercury, have no curative effects. The Wassermann reaction is very pronounced in both the blood and the cerebro-spinal fluid, which I regard as possibly evidence of an increased immunity hypersensibility. An excitable, neurotic man who is also erotic is more liable, if he has this immunity hypersensibility, to suffer from a premature primary decay of his nervous system, ending in tabes or general paralysis.

#### *The Creation of the Neuropathic Inheritance.*

If Nature is always trying to end or mend degenerate stocks, what is the reservoir from which fresh degeneracy arises? Can a sound stock be made degenerate by prolonged toxic conditions of the blood? In fact, can two germ-plasms which have been long subjected to poisoned conditions of the blood undergo a pathological mutation affecting only the functions of that most complex and delicate of all organs—the brain. The poisons may be introduced into the body from without for long periods of time, as in the case of chronic alcoholism. The poison may be engendered in the body as the result of the growth of parasitic organisms—*e.g.*, syphilis and tuberculosis;



or it may be a result of disorder of the functions of one or more of the glands whose internal secretions are essential for vital activities; or glands like the liver and kidneys, which are essential for ridding the body of waste products, may fail in the performance of their functions. The blood-stream no longer under such conditions maintains its normal biochemical relation to the organs of the body; a vicious circle tends to occur in which even the specially protected structures may suffer. The brain itself may immediately or quite early feel the influence of the change in the blood, and the unpleasant symptoms aroused may thus be a protective warning to the intelligent mind, and efforts will be made to avoid the danger, if the sensibilities are not blunted by habit and tolerance. The germ-cells are undoubtedly protected against the influence of poisons, but they are nourished by the same blood and lymph as the body-cells; prolonged toxic conditions of the blood—*e.g.*, by syphilis, alcoholism, and tubercle, the racial poisons—cannot but affect their specific vital energy, one manifestation of which may be irritable nervous weakness.

Admit that irritable nervous weakness—neurasthenia—may be the starting-point of an unstable nervous condition in a previously healthy stock which in successive generations may intensify under a continuance of an unfavourable environment; and admit, as we must, that this unstable nervous condition is a special outcome of modern civilisation and does not exist in a primitive people living a simple mode of existence—then as fast as Nature eliminates unsound elements by ending or mending degenerate stocks, social conditions tending to neurasthenia, or nervous weakness as the term implies, may be produced by a vast number of combinations owning a social cause related to unphysiological modes of existence causing bodily and mental stress. Among the most important are prolonged poisoning of the body, including the specially protected structures, the brain and the germ-cells, by indulgence in excess of alcohol, syphilis, tubercle, lead and the drug habits; the nervous exhaustion caused by the poisons of infectious diseases, fever and bodily diseases, and the anxiety and mental pain associated therewith. The nervous exhaustion resulting from sexual excesses of all kinds, and from the mental pains arising from the ungratified natural desires of the sexual passion, from the stress of the city and town life with its feverish pursuit of gain

and pleasure, from competition, whether in examination, occupation or business, from the constantly increasing departure from physiological modes of life. The existence of more refined physical and mental enjoyments, bringing with them desires and emotions previously hardly known or realised ; marriage without parentage and restriction of the birth of offspring, starving the maternal instinct, in which is rooted the highest altruistic feelings, developing the neurotic self-regarding temperament which so frequently precedes hysteria and insanity. Then prolonged emotional stress—*e.g.*, grief, especially the grief that “does not speak but whispers the o’er-fraught heart and bids it break”—and hatred which rankles in the breast ; sudden and emotional shocks—*e.g.*, disappointment in love, loss of a dear one, and, too often among the poor, death of the bread-winner and breaking up of the home—are the exciting causes of a mental breakdown. All these depressing conditions acting on the mind produce an injurious reaction in the body, causing sleeplessness, loss of appetite, and failure of the digestive and assimilative processes. Restoration of nerve potential and the nutrition of the whole body may thus become impaired, and a vicious circle produced which by continuous expansion tends to disturb more and more the biochemical equilibrium of the body functions leading to the generation of chemical poisons in the body or to failure of the excretory organs to eliminate poisons which should be cast out of the body. This auto-intoxication reacts upon the sensitive and exhausted brain, causing further mental depression (melancholia), or by paralysing highest control, to uncontrollable agitation and excitement (mania). It is obvious, therefore, that sociological conditions play an important part in the production of insanity ; moreover, it shows that certain occupations, or no occupation, may predispose to insanity.

#### SUMMARY OF POINTS WHICH REQUIRE DISCUSSION AND FURTHER APPLICATION.

##### *Anticipation in Relation to ending or mending a Degenerate Stock.*

In my opinion I am justified in concluding that there is a signal tendency to the occurrence of insanity in the offspring of insane parents at a much earlier age. Therefore a large proportion of the parents have given birth to their insane offspring

before they themselves were insane. Another point, and a very important one, which requires further investigation is this : Does the anticipation which I have shown necessarily either end or mend a degenerate stock ? About the proof of the former condition there is no difficulty, for if there are no offspring, or the offspring die in early life, the stock is ended. There is, however, much more difficulty in being sure of the mending of the stock, as there are several questions still unsolved. Nature certainly attempts to mend the degenerate stock by causing the insane offspring of insane parents to suffer with congenital imbecility or primary dementia of adolescence, and thus much is done towards getting rid of unsound members ; for these insane offspring would be, or should be, kept in asylums until they die ; thus they would never have an opportunity of procreating. What we really want to know is, what is the fate of all the offspring and of the next generation, both of those who are sane and of those who have had an attack of insanity and are discharged as recovered ? Do they breed insane or degenerate children ? Have the lines of neuropathic inheritance been only partially cut off by Nature ? A great many facts show that a disease may be latent and reappear in a stock when the conditions of mating or environment are favourable. Therefore, we require a collection of pedigrees which will prove conclusively that the offspring who are free from the insane manifestations during adolescence will breed children who will not become insane. This seems possible from the law of ancestral inheritance and Mendelian segregation, but the proof of this must be given. Even if it can only be shown that there is a strong tendency to end or mend a degenerate stock by nature, we shall learn by a study of these pedigrees how we can materially assist Nature in her effort—*e.g.*, supposing it were shown that the discharged *recovered* cases bore the seeds of insanity concealed in their body by later on begetting epileptics and congenital feeble-minded (in its widest sense), or children who later become insane, a clear indication would be afforded that something should be done to prevent this propagation of the unfit.

*Secondly.*—We want to know what are the inborn characters of children born to parents who suffer with recurrent insanity. Are they more liable to become insane than the offspring of parents suffering with other forms of insanity ? Again, what is the proportion of children born in the sane intervals after the

first attack, and has the attack of insanity in the parent any time-relation to the insanity which subsequently develops in the offspring?

*Thirdly.*—What types of insanity are especially liable to transmit an insane or neuropathic inheritance? Under what circumstances have epilepsy and anomalous forms of epilepsy a greater tendency to transmit a neuropathic taint? To ascertain this a number of pedigrees of patients require to be taken.

I am in hopes that many of the members of the Section from their knowledge and experience will criticise freely my conclusions, showing any fallacies that they think underlie them. I shall be quite as grateful for this as for support of my premises, as my object may be summed up in the words of Bacon in his *Advancement of Learning, Divine and Human*:—"First, therefore, in this as in all things that are practical, we ought to cast up our account, what is in our power and what not; for the one may be dealt with by way of *alteration*, and the other by way of *application*."

#### DISCUSSION.

The PRESIDENT (Sir GEORGE SAVAGE) said that Dr. Mott had laid before them a wealth of information. Many of the facts of this paper were confirmatory of his experience of nearly half a century. First, it was taught that all insanity was inherited; that insanity in a family affected every member of that family, so that any one of them was liable to become insane. Later, one's faith was shaken by meeting such conspicuous examples as Dr. Mott had pointed out, in which Nature re-asserted herself, and perfectly healthy families were produced. Cases came before him in which there were three or four insane members of a family, and then suddenly a branch of that insane stock produced nothing but healthy offspring. Such facts compelled him to hark back, but now he was more convinced than ever that there was an enormously potent influence, which should be called the neuropathic influence, but the nature of which was not yet fully known. The relationship of neuropathic inheritance to other disorders had already been mentioned by the author. And one of the first to notice this was Dr. Maudsley, who regarded it as an alternation of neuroses; when a man suffering from asthma might have this replaced by an attack of insanity, and with the onset of insanity the asthma would leave him. The same was sometimes found in the case of gout and insanity, and diabetes and insanity. That was true not only of the individual but of the family, so that while the forefathers might have suffered from diabetes, the offspring were affected with insanity; or insane parentage might produce diabetic or gouty children. He had also been, for a long time, struck with the occurrence of "anticipation," though to Dr. Mott must belong the adoption of the term in this connection. The fact that there might be healthy stock derived from insane stock, that there might be a breaking out of the disease, was so marked in his experience, that when his advice was sought as to whether "A" should be allowed to marry, though his aunt or uncle, or more still, if his father or mother were insane, he at once asked the question, "At what age did the relative break down?" His next question was, "How old is the individual?" If the person whom "A" wished to marry was not already related to his family by blood, he would not object, provided there were no previous neurosis in the persons themselves. He would be very guarded if there had been a nervous breakdown at any time, even though it was stated to have been of no importance. A point which had been brought out very strongly was this tendency to "breed out" the disease, and to revert to the normal of the race; but

at present one could not say which members should or would be saved, and which would be lost. It was not just to condemn every member of an insane family to celibate life. He would say cousins must not marry if there was any neurosis in either of them; but cousins *qua* cousins might marry with impunity; indeed, it had been pointed out by Coutts, in his *Consanguineous Marriages*, that the most beautiful offspring might have been the result of brothers and sisters mating. Mere consanguinity was not enough to condemn them; but if that were associated with some neurosis, then the projected marriage should be stopped, if possible. With regard to brothers suffering from general paralysis, many years ago both Sir Thomas Clouston and he had an experience of not only brothers but twins who were suffering from general paralysis. It was one of the events which made him feel that there was a neurotic tendency, though a very small one, as a factor in that disease. Some French authors had stated that with a neurotic inheritance syphilis tended to produce tabes, but that constitutional syphilis occurring in an individual without a neurotic inheritance tended to general paralysis. He did not think that could be substantiated. The question of the possibility of an acquired character being transmissible was often brought up. He believed he had seen a certain number of instances in which members of a perfectly healthy stock, from some accident or injury—or of course from general paralysis—had developed insanity, and the offspring had been insane too. Thus it looked as if an acquired instability had been transmitted.

Dr. HILL WILSON WHITE demonstrated the book devised and used by himself at the asylums for ascertaining the pedigrees of patients, and described a number of instructive charts of families on the screen. He said he had gone through forty pedigrees in all, and twenty-five of them were very complete. The only selection he made was to choose patients with two living relatives, if possible, so as to get information on each side. The abnormality on the mother's side seemed to be greater than that on the father's side. In reference to this fact it should be noted that all the pedigrees were of female patients. With regard to the general conclusions, there were a comparatively small number of insane in the pedigrees. In most of the pedigrees which he worked out the law of anticipation was confirmed; the insanity either died out by the patient going into an asylum and not marrying, or, in many cases, the patient broke down congenitally. It had been said that from a tuberculous individual one was liable to get a tuberculous stock, but these inquiries did not bear that out. Another thing was that one could never tell, in any insane stock, where any individual would break down, nor even whether he would break down at all. All one could say was that if he did break down it would probably be at an earlier age than the parent or grandparent had broken down.

Dr. ROBERT JONES (Claybury) said he did not quite agree with the statistics. He considered that Dr. Mott did not make quite enough of the inheritance of the general paralytic. He (Dr. Jones) had as a patient the grandfather, the father, and son, suffering from general paralysis. Yet he considered that general paralysis might attack a parent and nothing be transmitted to the children. He gathered the latter was the President's view. He collected statistics in regard to 100 cases of general paralysis at Claybury—males—who had died, and about the diagnosis of which there could therefore be no doubt, for the *post-mortem* examination verified the diagnosis. That series brought out the idea which he had always entertained. In the 100 cases in which the family history was complete there was a history of paralysis—he did not say general paralysis—but often given by the patient's friends as "spinal paralysis." In two of those cases he knew the disease was general paralysis. In 28 *per cent.* of the 100 cases there was a history of some kind of paralysis. In addition there was a history of some member insane in a very large proportion—namely, in 38 *per cent.* In 18 *per cent.* there was a history of drink in the parents. In the ancestry, nine of the fathers and four of the mothers of the general paralysis cases were insane, twelve gave a history of epilepsy in the ancestors, and thirty-one gave a history of tuberculosis. It was against Dr. Mott's view, but he maintained strongly, from the experience he had had at Claybury, that tuberculosis often figured in the ancestry or in the collaterals of patients who came into the asylum. The point he wanted to lay stress upon was that general paralysis of the insane was engrafted on what had been termed the neurotic temperament or the neurasthenic temperament, yet,

if he might suggest it, no definition of this had been given by Dr. Mott. What was the cause of neurasthenia? There was not always a nervous history. He appreciated the President's remarks on the alternation of asthma and insanity, and Sir Thomas Clouston's reference to influenza and insanity, when the latter considered influenza to have been responsible for lowering the nerve power of one-third of Western Europe. The ductless glands were also responsible for many cases of neurasthenia. Not long ago he had the case of a young woman who had been to many nerve specialists and had been treated as a neurasthenic case; she had "rest" treatment several times, but eventually drifted to the asylum. She seemed to him very like a case of ordinary myxœdema, but there was a distinct thyroid palpable. Dr. Mott kindly saw the case also, and they agreed that it was a neurasthenic case with symptoms of myxœdema. She died, and a very careful examination after death revealed a complete disintegration of the glandular structure of the thyroid, which was shown to have been inactive. There were probably many cases in which the ductless glands were at fault—the supra-renal capsules, the pituitary body, the thyroid, the lymphatics, and possibly other glands of which little was yet known. Considering that syphilis was so common, and that not more than 4 per cent. developed general paralysis, it must be grafted on to some neurasthenic base before it was revealed as general paralysis. He maintained strongly, and was supported by the statistics he had quoted, that general paralysis of the insane was, from the heredity standpoint, related to the other varieties of insanity and could be transmitted to descendants, and it would be most interesting and instructive to know, from the pathological standpoint, what was the underlying physical factor of the inheritance of insanity. Another point was the following: There were so many cases of insanity at the ages of forty-two, forty-six, sometimes fifty-six and sixty-three, that it showed the impossibility of ending insanity by segregation or by castration, or by sterilisation. Certainly in many of the cases the children were born before the occurrence of the insanity.

Dr. CRICHTON MILLER pointed out that Mendel's law was only intended to apply to unit factors in the first place. Insanity was, as Dr. Hyslop pointed out, a clinical entity. We were bound to be disappointed if we expected this law to hold in tracing the heredity of cases of insanity. Again, with regard to Galton's law, what Galton really pointed out was the *potential* contribution of each ancestor, rather than the actual contribution.

(<sup>1</sup>) *Proc. Roy. Soc. Med.*, 1912 (Neur. Sect.), pp. 15-20.

(<sup>2</sup>) *Lancet*, 1907. i, p. 935.

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*Assistant Medical Officers in Asylums.* By Dr. J. B. SPENCE, Medical Superintendent, Burntwood Asylum, Lichfield.

THE title of this brief paper will be familiar to many of you as the heading to letters which have recently appeared in several successive numbers of the *British Medical Journal*. Some of the letters have been signed with the full name of the writers, others with a pen name. They have all been characterised by moderation of language in the presentation of the case in which the writers and many others are deeply interested. For some time past I have felt strongly that something should be done to improve the position of assistant medical

officers of asylums, and am in full accord with the work of the Committee of this Association, who have recently furnished an interim report upon this subject. A further report will doubtless soon be forthcoming upon the financial and social position of assistant medical officers, and it is this view of the case which I desire to place very briefly before you this afternoon.

As most of you know, the Interim Report referred to (which the Association, with perhaps unconscious self-sacrifice, has fathered at the expense of its own legitimate offspring, the Certificate of Efficiency in Psychological Medicine), advocates the more advanced education of all candidates for the post of assistant medical officer, and I believe that there are those who go so far as to say that no appointments—certainly no senior appointments—should be given except to those who hold a special qualification in mental science, just as in the case of men who apply for the post of medical officer of health, where a special diploma in sanitary science is regarded as absolutely essential. Dr. McDowell, of Morpeth, who has been a very active member of the "Status" Committee, with admirable tact took the opportunity of a meeting held in the Guildhall of the City of London, at which representatives from the committees of many asylums were present, to press upon their notice the advisability and importance of granting furlough leave to the junior members of the medical staff of their asylums in order that they might have the opportunity of making a special study of subjects required by universities who either do now or who may in the future grant diplomas in psychological medicine. No one will dispute the wisdom of this step forward in the study of the causes and prevention as well as in the treatment of insanity, but there may well be, and there are, grave doubts as to its practicability. In this, as in so many other of the affairs of life, the money factor has to be considered, and while I would not even hint in a learned society like this that the labourer is worthy of his hire, or that the proper scientific spirit should not be "to set the cause above renown, to love the game beyond the prize," yet there are such mundane matters to be taken into account as wives and bairns, who might not regard the position from such a lofty eminence, and for whom we all would desire a fair share of the best that we are able to provide, so that there is no doubt, should the time come when all applicants must be holders of a special diploma, there will

arise a demand for remuneration in some proportion to the time and money expended upon the acquisition of a higher certificate. Indeed, it is not necessary to labour this point in view of the fact that even now it is no easy matter to secure the services of such a colleague as we would desire to work with. So many new appointments for men about the age of those who are suitable for junior posts in asylums have recently been created, that the difficulty which has already arisen is certain to increase as time goes on, and I do not hesitate to say that committees of asylums will be compelled by the law of supply and demand to increase the stipend of the junior medical officers so as to induce the right type of man to enter our speciality. As I write, I am informed that a marked increase has been observed in the amounts recently offered in advertisements for junior medical officers, but so far I have seen no indication that this increase has extended to the senior men as well. In these days, when tuberculosis officers, school attendance officers, deputy medical officers of health, and other like offices are opening out interesting and fairly lucrative careers to young medical men, it becomes daily more difficult to obtain men of the class we should like to have as our colleagues, and when one sees posts advertised with salaries of £400 to £500 a year attached to them with the freedom which assistant medical officers of asylums cannot be expected to have, one does not wonder that many young men prefer to take up other branches of the profession rather than that of medical officer of an asylum. So far I think I have with me the opinion of a large majority of superintendents, but perhaps there may be some difference as to the merits of my next proposition. For a few years a man—provided it is made worth his while financially—cannot do much better for himself than hold a post in an asylum. He gains experience which cannot be acquired elsewhere, and which frequently proves very useful to him in after life; he learns something about organisation, which is also to the good in general practice, and on the whole he cannot fail, if he is the right sort of man, to have a fairly decent time, free from any serious responsibilities, during a comparatively brief tenure of the junior post. But the time comes when he will begin to ask himself the question whether a continuance of this pleasant existence is quite the wisest course for him to pursue in view



of the future, and at this point, in my opinion, we often lose a good man who would, under more promising circumstances, follow the course of study suggested by this Association, and so render himself eligible for the next step in his career. As things are now what has he to look forward to? In the majority of asylums he may expect perhaps an increase of salary, which in itself is not a bad thing, but is not a sufficient inducement to a man to cause him to stand fast. It may happen that in a few cases men are fortunate enough to obtain charge of an asylum at a comparatively early age, but in the majority of instances years must pass before this takes place, and, as we all know, many men grow old without having had the good fortune to succeed in obtaining promotion in their own county, or a higher post elsewhere, and that not through any fault of their own, but simply because they are the victims of circumstances over which they have practically no control. It is this condition of affairs which requires the close and experienced consideration of the Association in order to arrive at some decision which might be pressed upon those who are in a position to give practical effect to any recommendations made with a view to improve the position of assistant medical officers, and especially of the senior assistant medical officer. I should be encroaching upon the functions of the "Status" Committee if I were to go into any considerable detail of the points which I consider require attention, but whoever has read the letters to which I have referred knows well where the shoe pinches, and consequently has a very fair idea of the direction in which reform is required.

In order to obtain thoroughly reliable information as to the present position of assistant medical officers throughout England and Wales, I have sent out forms to the superintendents of ninety-four asylums; and here I would like to acknowledge with gratitude my indebtedness to a large number—ninety-two—of these gentlemen for so promptly and fully acceding to my request. I should say at once that I regard the replies as confidential, so that I am unable to give particulars of any one asylum, but I think the method I have adopted of tabulating the results will answer the purpose of this paper, and will afford all the material necessary for a full consideration of the subject. The first question in the circular referred to the number of assistant medical officers in the county and borough

asylums of England and Wales, and inclusive of the two asylums from which I did not receive replies, and the information for which I obtained from other sources, the total number of assistant medical officers in county and borough asylums is 253. Of these, seventeen asylums have only one assistant medical officer, but where there are two or more I have regarded one as a senior assistant medical officer, so that when I refer in this paper to senior assistant medical officers I mean to imply that there is more than one assistant medical officer on the staff.

With regard to the salaries of the *senior* assistant medical officer (question 2), the *average* minimum appears to be £224 and the *average* maximum £309 per annum, exclusive of emoluments, the lowest being £150 rising to £200 and the highest £330 with a maximum of £430.

The medical officers junior to the first seem to vary from an *average* minimum salary of £160 to an *average* maximum of £208, the highest being £185, rising to £330 per annum, and the lowest £130, rising to £150.

The value of the emoluments are difficult to tabulate as as they vary so greatly, but in the majority of asylums the emoluments for the purpose of the Asylum Officers' Superannuation Act have been taken at an average of £105, the highest being £140 per annum and the lowest £68.

As to the question whether the medical superintendents throughout the country approve of the senior assistant medical officer being a married man, I am glad to say that the reply has been in the affirmative in nearly every instance :

Sixty-seven of the ninety-two superintendents are in favour without reservation.

Six state that permission might be granted if accommodation is provided. (Of course that proviso is essential in all instances, so that these may be added to the number of superintendents who fully favour the proposition.)

Nine think it might be permitted in large asylums.

Two consider that such permission should not be granted until "after reasonably long service."

Eight regard the question unfavourably, of whom one writes that he "does not think it necessary"; two do not think it advisable as a rule; one emphatically states that he thinks it not advisable. One gives no definite opinion, but says the

question has not arisen, and three do not reply to the question. Two have not returned the form.

In some few of the larger asylums where there are several assistant medical officers on the staff, both the first and second are permitted to marry, but in the majority of instances the feeling seems to be against the granting of permission to marry to the second assistant medical officers. Judging by the replies to my inquiries, fifty-seven superintendents do not approve of the second assistant medical officer being a married man. In the seven London county asylums the question has been definitely settled by the committee granting permission to marry to the first and second assistant medical officers, but at these asylums the medical staff is usually large enough to permit of this exception to the general rule without interfering unduly with the routine duties. Of the remaining twenty-eight replies, twenty-one are in favour subject to certain conditions which might easily be arranged, three are not satisfied that it would be advisable, three reply that the question has not arisen, and one gentleman writes, "Yes, if men are fools enough to wish it."

With regard to the number of asylums which at the present time sanction, or in the past have permitted, the marriage of the senior assistant medical officer, I am informed that in twenty-three asylums there are married assistant medical officers, in three asylums there have been married assistant medical officers, in sixty-three asylums these officers are not married, three superintendents do not reply to the question, and two superintendents have not returned the form.

As to the form of accommodation provided in asylums where one or more of the assistant medical officers are married, or where men holding the position in the past have been married, thirteen superintendents reply that the accommodation has been provided in the main building; two state that a house attached to the annexe or to the detached hospital was utilised; in eight instances houses on the asylum estate are found; three rent houses outside the grounds and to sixty-five this question does not apply.

A matter that presents considerable difficulty is dealt with by question 8. "Are the married assistant medical officers boarded, and what arrangements are made for the wife and

child or children?" I have thought it well to reply to this question in detail, as one cannot but think that should the whole question come to be considered by committees of asylums it would be helpful to them to know what is being done in this particular direction elsewhere.

Married assistant medical officers may be divided into three classes: those who have rooms in the asylum main building, those who occupy a house on the asylum estate, and those who rent a house outside the asylum grounds. Of the first class there appear to be thirteen; of the second class ten; and of the third class three. Of the first class (those who have rooms in the asylum main building) three are boarded and lodged; three are charged various sums for the board, etc., of wife and family, while seven board themselves, but are granted an allowance in place of board. Of the second class (those who occupy a house on the asylum estate) six have a house rent free, but are not boarded, receiving an allowance instead; three receive cash *in lieu* of emoluments but pay rent, while one has a house and is boarded, but pays for keep of wife. Of the third class (those who rent a house outside the asylum grounds), three have houses outside the asylum estate, and of these two are boarded, and the third has a money allowance as a substitute for board. It will thus be seen that the conditions under which senior assistant medical officers are permitted to marry are very various, and each case would probably have to be considered upon its merits.

It occurred to me that it might be of interest to set down a few particulars as to the salaries and allowances of medical officers in the prison service, as in that service these officers are free to marry, and are otherwise somewhat in the position of senior assistant medical officers of large asylums. I find that there are eight men attached to local and convict prisons in England and Wales whose minimum salary is £400 a year increasing by £15 a year to £550, while six have £300 a year minimum increasing by £10 a year to £390. One who is marked "special" commences at £450, reaching the same maximum of £550. All have quarters allotted to them, or an allowance in substitution thereof, but no board.

Those of us who have followed the reports left by the Commissioners in Lunacy at their annual visits to asylums cannot fail to have remarked how often a persistent inquiry

into various points of administration, and comments, complimentary and otherwise, upon the way in which the suggestions made have been carried out in different asylums, has frequently resulted in the adoption of such recommendations ; in this way the Commissioners might be helpful by drawing the attention of committees to any alteration in the status of the assistant medical officers which might commend itself to them. I have of course no knowledge as to what view the Commissioners take of this subject, but I have every confidence that if their attention were directed to it they would consider it fully, and if satisfied that intervention would be advantageous, would not hesitate to give all the help in their power so as to bring the matter practically to the attention of committees, who, whatever one may hear to the contrary, are very much influenced in their actions by any remarks or suggestions of the Commissioners, who are naturally regarded as experts in all asylum matters owing to their large experience in the details of administration, in addition to the authority which their official position gives them as the head of the department to which the government of asylums is entrusted.

I regard it as no small part of the duty of this Association to assist its members in every legitimate way to improve their positions, and to support them in their efforts to make existence something more than merely endurable. As illustrating what the Association can do, one has only to look back upon past years and note what has been done for the amelioration of the condition of the mentally afflicted, how greatly the nursing and general treatment of those committed to our care has improved, and what vast strides have been taken in the direction of converting the asylum Sairey Gamp into the smart, considerate, trained nurse we are now acquainted with ; and, more than that, the improvement in the position of that nurse is due in a large measure to the efforts of this Association, which, although sometimes regarded as a sort of trade union, of which the members are the medical officers of asylums banded together for their own selfish interests, is in reality an active agent in the work of bettering the condition of every single person engaged in an asylum, whether worker or patient. It is because I believe we all recognise this function of the Association that I ask you to exercise it on behalf of the assistant medical officers of asylums, although I know there are many difficulties to be

overcome before we shall obtain all that we desire. No one appreciates the perplexities of the position more than I do. To obtain an increase in the pay of assistant medical officers may not be such a hard task, as committees will probably find that it will be impossible for them to combat stern facts, but when the additional expense attending upon the provision of suitable accommodation for married men has to be faced, I fear it will not be without a struggle that we shall overcome their not unreasonable objection, from the point of view of their position as protectors of the ratepayers, to an outlay which cannot be a small one if our colleagues are to be housed in a manner commensurate with the positions which we are anxious they should occupy.

My objects in bringing this short paper before you to-day have been: First, to indicate to the assistant medical officers of asylums that this Association is in the fullest sympathy with their aspirations, and is desirous to render all the aid possible towards the realisation of them; second, to place before you in detail the present position of the junior members of the medical staff; and third, to give my hearers an opportunity of expressing their opinions upon a subject which affects not only the assistant medical officer, but everyone connected with asylums—patients, superintendents and staff, and not least the committees, who have the duty imposed upon them of deciding how best to attract and retain the services of loyal and efficient men in the work of the institution under their control and management.

I would like to say before sitting down that my personal opinion on the subject, for what it is worth, is that in order to induce the right sort of man to enter asylum service, the time is ripe for an advance in the average pay of all assistant medical officers, and that, in addition, the privilege of marrying, and of being provided with suitable accommodation in the vicinity of the asylum, should be granted to the second in command, the position and pay approximating to that of medical officers of prisons, whose duties are certainly not more onerous, and whose positions have certain advantages over that of the asylum medical officer.

The PRESIDENT said the Association had had from Dr. Spence a well-considered and balanced statement on a very difficult subject, and the author had done much to help forward the solution of that subject. He did not himself propose to offer any comment on the paper, as he was a member of the Status Committee, and as

all the available evidence was not yet taken, members of that body had not arrived at an opinion. But he asked whether it would be possible to have advanced proofs of the paper before the next meeting of the Status Committee, because the information contained in that paper would be of very great value to the Committee.

Dr. MENZIES said that perhaps he could focus the discussion on the matter by asking how it was suggested that the assistant medical officers would provide for the supervision of the building in the evening and night time, if they were married and living out. If that information were forthcoming, it would smooth the task very much.

Dr. WOLSELEY LEWIS said he was sure all would feel much indebted to Dr. Spence for his paper just presented, because it afforded members an opportunity of discussing a subject which was of very great importance, especially in the larger county asylums. As Dr. Spence had very straightforwardly put it, the difficulty was mainly that of accommodation, from the medical superintendent's point of view. In most county asylums there was no such accommodation. If the senior assistant wished to get married, application had to be made by the superintendent to his committee. And if he were required to stay on the estate the committee had to be asked to build him a house. This of course cost a good deal, and it was not every committee which was willing to do that. It was one of the great difficulties the superintendent was faced with when he was approached by his senior assistant on the subject of getting married. Superintendents would like to hear, in this discussion, the opinions of some of the senior assistants and of the other assistants in asylums, of whom there were several present.

Miss JOHNSTONE (Virginia Water) said she felt it was very important that assistant medical officers should have occasional opportunities of rubbing up their knowledge on the special subject for the benefit of their patients. Most assistant medical officers were at some distance from university and large teaching centres; hence it was almost impossible, without having extra leave for the purpose, to study for higher diplomas. Quite apart from that, such study must have a great influence on one's work. It was perhaps not to be expected that they should get sufficiently long leave to take up a whole course, but two or three weeks extra on to the ordinary holidays would make a difference. She understood that in Germany short courses in psychiatry could be taken out, and surely in this country also something of the kind would be arranged in the large centres if study leave were given. Psychiatry clinics would afford the opportunity to assistant medical officers to rub up their work, and acquire fresh knowledge, but there seemed little chance of doing so at present.

Dr. BOWER said he did not think there was likely to be a very extensive discussion on the paper because most members of the Association would be found to be in agreement with what Dr. Spence said. He, the speaker, had had experience in the three kinds of asylums; and he was a member of a committee which had provided special accommodation for the senior assistant medical officer to be married. All the difficulties which appeared great in the eyes of the objectors had vanished into thin air, and the decision had been a very great success. The question of a separate house for the assistant medical officer who wished to be married was more or less settled by the same conditions as settled the separate house for the superintendent. Not very many years ago no plan for a separate house would pass the Commissioners in Lunacy; but since the village asylum had come into existence and the different parts of the asylum were separate buildings, there was no disadvantage in either the medical superintendent or the senior assistant or the second assistant medical officer having a separate house.

Dr. SARGEANT said he had never been an officer in a county asylum, but had been assistant medical officer in a private asylum, where he was very comfortable. What had often struck him was that when the Commissioners paid their visit and paid careful attention to the accommodation and comfort of patients, and sometimes to that of nurses and attendants, and even inquired whether the medical superintendent was comfortable, on no occasion did they see the assistant medical officer's quarters, or ask whether he was comfortable, or what he was paid, or appear to take any interest. It would be a good thing if the Commissioners could be persuaded to take more interest in the accommodation and conditions of the assistant medical officer than they apparently did.

Dr. POWELL said he thought the great cause of complaint from which medical officers of asylums suffered was the slowness of promotion. Assistant medical officers, whether senior or junior, were, in many asylums, men of somewhat long standing, and the promotion was so slow that the hardship increased as time went on. In fairly large asylums, where the superintendent himself was not in close touch with the patients, and possibly did not see them every day, it was very important for him to have as his senior assistant a man who was experienced, and one whom he could trust to see that everything was done properly with regard to the medical treatment and care of patients during his absence. In smaller asylums, where the superintendent was himself in close touch with the patients, seeing them every day, it was not so important that his senior should be very experienced. In large asylums a large part of the medical duty must be delegated to his assistants; therefore everything should be done to ensure that the assistant's life should be comfortable, and the conditions such as would induce him to stay. With regard to junior assistants, on the other hand, he thought superintendents were largely to blame in that they sometimes allowed junior assistants to become what were known as "chronic assistants," when it was quite evident that they would never ultimately gain any post of distinction or responsibility. If in twelve months that became evident, it was the superintendent's duty to tell such an one that he was not calculated to rise to the top of the tree in that line, and therefore he would do wisely to seek another field of work. He did not himself think it was conducive to the welfare and good of asylums generally that junior assistants should remain long in asylums. It was better to have frequent changes in the asylums, having men fresh from the hospitals, with the new ideas they would bring. It could not be for the real good of the asylum to have three or four men who were simply hanging on. They got into a groove in the work, and they did not infuse that spirit into the institutions which there should be.

Dr. PASSMORE said that at Croydon Mental Hospital his senior assistant asked him to approach his Committee in order to obtain permission to get married. That permission he was able to obtain. On the estate was a house which was originally built for the steward, and afterwards used for patients. The use of this was granted to the senior. The second assistant might be allowed to have married quarters in the main buildings. He thought that if medical officers for asylums were going to be required to possess the high qualifications which had been referred to, the time had arrived when they should be adequately remunerated. He felt that so much that he induced his Committee to offer for a junior assistant at Croydon a salary of £250. To a certain extent the Commissioners in Lunacy had the matter in their own hands, because when plans of projected asylums were sent up to their office, they should insist that a separate house should be built for the senior assistant medical officer; and the quarters in the main building should be so adapted that they could be occupied by a married man. At Croydon they had a good bacteriological laboratory, and found plenty of work to do. There was also an X-ray department. The medical officers there did their best to attend classes in London, and in that way work towards something better in the future. Men who wish to get married should not be condemned to celibacy simply because asylum conditions were such that they could not. He was very much in sympathy with the paper by Dr. Spence, and he thought the time had arrived when all superintendents should try to make the lives of their assistants happier.

Dr. SPENCE, in reply, said he thought Dr. Bower had effectively answered the remarks of Dr. Sargeant. Lunatics, he considered, were the best doctored people in the world. People outside, when anything happened to them, had to wait until a doctor had been sent for, but patients in asylums were accustomed to being waited on hand and foot. During the many years he had had the opportunity of seeing Commissioners at their visits, he had known them inquire as to the messing, housing and general conditions of assistant medical officers. His experience was that the Commissioners did not overlook that, which he regarded as a very important part of their duty.



*After-care in Cases of Mental Disorder, and the Desirability of its More Extended Scope.* By Dr. C. HUBERT BOND, Commissioner in Lunacy, and Emeritus Lecturer in Psychiatry at Middlesex Hospital. <sup>(1)</sup>

AT the request of the Council, and with your permission, I propose to lay before you this afternoon the following points for your consideration : firstly, the importance of organised after-care in cases discharged recovered or relieved from mental disorder ; secondly, the lamentably small proportion of these discharged cases which are brought under the notice of those engaged in after-care ; thirdly, the limitations imposed by the constitution of this Association in its practice of after-care ; and lastly, certain suggestions—partly the outcome of conversations with your Secretary, Mr. Thornhill Roxby—with a view to increasing the scope of the Association's work.

*The Importance of Organised After-care.*

It is indeed a singularly fortunate man or woman who does not know by personal experience, if not the necessity for, at least the balm-giving influence of, a period of rest and the recuperative effect after illness of a term of freedom from the cares of one's daily avocation. Nor, indeed, will anyone dispute that judicious after-care is not only one of the most potent promoters of full recovery, but also one of the surest safeguards against relapse, in by far the majority of the many diseases to which we are all liable. Such being the case, and if it is true, as has been written—and who will deny it?—that "Babylon in all its desolation is a sight not so awful as that of the human mind in ruins," how much the greater need that after-care should follow recovery, whether complete or partial, from such a catastrophe as an attack of insanity? The value of such has on many occasions, and especially at these meetings, been urged in far more eloquent terms than I can command ; but I doubt not that you will agree that the circumstances which surround the origin of so many of our mental cases possess a dumb eloquence of their own that cannot be gainsaid.

Consider for a moment what these circumstances so com-

monly are—very briefly, however, for to do so with any approach to thoroughness would involve an exhaustive survey of the many factors that take part in the causation of mental disease, and truly the “cause of insanity” is a hydra-headed complex. But these factors, numerous though they are, tend naturally to fall into certain groups, and it will be sufficient for present purposes merely to allude to the most important of them, entering into detail only with respect to the last group, and because the work of this Association is in practice so intimately concerned with it.

As part of, and probably the predominant partner in, this complex of factors, mention must first be made of what is sometimes termed a neurotic constitution or temperament; and it must not, indeed, be forgotten how very large a proportion of the insane enter on life's battle possessed with this handicap, and are thereby ill-equipped to withstand successfully the many stresses that may arise in the ensuing three score years and ten. Some of these stresses are inseparable from life's normal course, as, for instance, its several critical epochs, and, in women, the strain of maternity; other stresses, such as bodily illnesses and injuries, are in the nature of accidents; others are the effects of intemperance and excesses of various kinds; while still others—and they are legion—are mental in type, and include all the many shocks, worries, and anxieties from which only a very sheltered life is free.

Reflection upon the first of these factors suggests the desirability of “fore-” rather than “after-care”; and there can be no doubt that occasionally individuals who, as the result of their knowledge of the occurrence of mental and nervous disorders in their respective relations, have been able to recognise their own liability, have, by acting upon competent and judicious advice, succeeded in warding off mental and nervous breakdowns in themselves. Such examples of enlightenment in a difficult problem are, alas, only too rare, and we can but hope that, with the gradual education of the public upon this and kindred matters, they will be more frequent.

Meanwhile this Association has, at any rate for a considerable time to come, more than ample scope for its energies in concentrating its attention upon making smooth the difficulties and alleviating the distress which so often constitute the aftermath of an attack of insanity.

For, among the group of factors which are mental in type, especially in the class of cases which form the majority of those assisted by this Association, conspicuously stand loss of situation and inability to get work, with all their attendant hardships, so often culminating in more or less actual starvation. The disastrous effect of such privation can be to some extent realised when I tell you that, in the course of an examination of the records of 100 consecutive discharges on recovery, I found that a comparison between the patient's weight on admission to the asylum and that on discharge therefrom showed an average gain of no less than 18 lb. No doubt in a certain number of these patients the loss in weight which had taken place previously to admission was due to the mental illness itself: indeed, in some forms of recurrent insanity it is often taught that the keeping a watch on the body-weight and regarding any serious loss as an indication at once to obtain suitable treatment constitute a valuable means of warding off the threatened relapse. But apart from this evidence, a perusal of the history of these 100 patients, both as obtained from their friends and as related by themselves after recovery, makes it all too clear that, in an appreciable number of instances, loss of employment and consequent poverty with insufficiency of food had preceded the mental breakdown, and was undoubtedly one of the determining factors—sometimes apparently the only one—in bringing the patient to the asylum.

Now it is obvious that if the resources of these patients had been reduced to so low an ebb prior to their advent to the asylum, there can be little ground for expecting that fortune will have a brighter face with which to greet the discharged sufferer without the intervention either of charity or rate aid; the latter is mentioned because, under the existing Lunacy Acts, visiting committees of asylums are empowered to make a money allowance to a patient leaving the asylum under certain circumstances, to which reference will presently be made. Nor must it be forgotten that, even in those cases in which pecuniary distress or other adversity was not present, it by no means follows that on discharge from the asylum there will be the same freedom from adverse circumstances; because, as you well know, it is not infrequently only too true, either that an employer hesitates to reinstate an employé who has been absent owing to mental illness, or that the latter has been of such

lengthy duration as to have made it impracticable to keep the post open for the patient's return. In short, it may be stated that, apart from married women who have their homes to which to return, by far the majority of our patients in public asylums on their discharge therefrom are under the stern necessity of at once seeking for fresh employment—a quest which under favourable circumstances is sometimes difficult, but rendered doubly so if the would-be employé has to explain that his recent months have been passed in an asylum. Have we not in truth here all the elements required to establish what is termed a “vicious circle”? Small wonder that such a case, in the face of inability to obtain a livelihood, speedily relapses.

*The lamentably small proportion of Discharged Cases which at present receive After-care.*

By a reference to page 120 of the *Sixty-sixth Report of the Commissioners in Lunacy*, it can be seen that every year there are discharged recovered, from county and borough asylums in England and Wales, something like 7,000 cases, in which women slightly preponderate. The degree to which these cases need pecuniary aid, relief in kind, or assistance in finding employment, no doubt varies in different localities; but I venture to assert that there is not one of them but would benefit by being followed up, counselled, and—in so far as necessities exist—befriended. I have reason to think, too, that such help is most acceptable and in the end most efficient and successful when given by a body organised as is this Association, and whose executive is detached from any public authority. In other words, I believe that discharged patients welcome visits and accept help from members of the Association's staff, whether honorary or paid, and learn to return voluntarily when in doubt or difficulty to the Association's offices, when they would not have done so had the visitor or almoner been directly connected with the asylum whence they had been discharged. That, at any rate, has been my experience of these cases, and a study of their subsequent history leaves me with a feeling of assurance that, in a gratifying number of instances, impending relapses were staved off thereby. To the cases already mentioned, others discharged recovered from licensed houses and hospitals for the insane might be added; but their number

is difficult to estimate, as in a considerable proportion of them it would probably not be easy for the Association to proffer help, and in any case it is small in comparison with the 7,000 from county and borough asylums. Most of those present here to-day are in all probability familiar with the number of cases on whose behalf applications are year by year made to this Association ; but for the benefit of those who are strangers to its work I may remind you that, according to four of its recent annual reports, the yearly average number of applications for after-care is 380, in the proportion as to sex of about two men to three women. From the report before us to-day, we may take it that about 77 *per cent.* of these applications are with respect to patients discharged from county and borough asylums, and further, that, of the number represented by this percentage, one-half are cases from the County of London asylums.

It is thus apparent that not more than one in eighteen discharges on recovery is brought under the Association's cognizance—a matter surely for deep regret, and towards remedying which it is gratifying to see that the number of local branches is tending to increase. Apart from three in or near London, actual branches at present exist only in the counties of Derbyshire, Essex (2), Kent (2), Oxfordshire, Somersetshire, Warwickshire (2) and Worcestershire (2), though mention should be made that some thirteen smaller districts each have a member of the Association who is good enough to act as honorary local secretary. It is, I feel convinced, only by persistent efforts on the part of everyone interested in this important work, and a refusal to be content until an active branch has been established for each local authority, either acting alone or in combination for lunacy purposes, that the Association can ever cover the whole ground of the work that lies at its door, and for which it is so admirably fitted. It is also, I think, highly important that, in the formation of these branches, the sympathetic interest of the medical superintendents, chaplains, other officers and members of committees of the asylums concerned should be elicited, and that they, and, if possible, their wives and such of their neighbours as will interest themselves, should be active members of their respective branches ; on the other hand, as already has been said, I believe it is better that the *personnel* of the executive, that is to say those who come in contact with the

discharged patients and their homes, should not be such as would necessarily remind the patients of their recent painful illness.

To extend some measure of after-care and supervision to every discharged patient, however desirable that may be, might possibly be considered as too much a counsel of perfection—probably rightly so at present, and until the necessities of those requiring help in money, kind, or in their search for employment, have been met. It is not an easy matter to gauge, even approximately, what this number is, and in attempting to do so I can only fall back on my own experience in the matter. Thus, I find that in the five years during which I was superintendent of the Long-Grove Asylum, some 700 patients were discharged recovered, and that of them there were exactly 100 instances on whose behalf I made application to the After-care Association, to which number should be added at least 55 other cases (notes of which I have) that were in more or less urgent need of help and which were otherwise dealt with. It was my habit at my final interview with patients, prior to recommending their discharge, to ascertain and enter in the case-book full details of the circumstances with which, apparently, they would be confronted on leaving the asylum. In every case in which difficulty in obtaining employment was likely to be experienced, or where there was a probability of financial straits, where, for instance, tools or a sewing machine, etc., were in pawn, or had been sold under pecuniary stress, or where the patient was without home or place other than the workhouse—in every such case the good offices of this Association were sought. In company with the other London asylums my committee, who were always most assiduous in placing a patient about to be discharged on the best possible footing, had at their disposal a grant from the Queen Adelaide Fund; it was usually their custom, in cases that the superintendent thought would benefit thereby, to make an order for the payment of £3 in respect of every patient for whom the help of this Association was requested. Mr. Roxby has been good enough to furnish me with a list of these 100 cases, with details of the procedure adopted in each instance, and the success or otherwise by which it was attended. I can only say that its perusal fills me with warm admiration for the painstaking efforts bestowed on each case, without which it is my convic-

tion that relapses would have been earlier and more frequent : in truth, with respect to some of the more unstable cases, I doubt if I could have recommended their discharge at all, had it not been that I had grown accustomed to being able to count on the helping hand of the Association on behalf of similar difficult cases. Therefore I gladly take this opportunity of expressing my personal indebtedness to the Association and my emphatic belief in the value of its ministry.

To return to the question as to how many patients are in pressing need of assistance at the time of their discharge, it would seem, if my experience is about what is usual, that the proportion is approximately two in nine, or a total of not less than 1,500 a year, of which we have seen that only about 380 are brought to the Association's notice. That a much greater number are not at least notified to the Association is to me a matter of much surprise. Perhaps the explanation is that its funds are known to be very limited, and that, were it more liberally endowed, asylums would be less timid in soliciting its help. There is, however, one direction in which asylum authorities have it in their own hands to provide at least a share of the cost of after-care, if the Association could in one particular alter its rules, and this brings me to my third point, namely :—

*The Limitations imposed by the Constitution of the Association in its Practice of After-care.*

As doubtless most of you are aware, patients in institutions for the insane may be discharged either as "not improved," "relieved," or "recovered," and it is only upon the last group that this Association is permitted by its constitution to exert its function of after-care. Although there is reason to think that there are a limited number of those discharged as relieved who not only need, but are suitable cases for, the help of the Association, I do not propose to ask you to concern yourselves with them to-day. What I wish to remind you of is the fact that, prior to a patient being discharged as recovered, it is within the power of two members of the visiting committee, upon the advice of the superintendent, to allow the patient to be absent from the asylum "on trial," as it is termed. This is a most salutary and wise practice ; because, as is so well known,

there is no sharp line between stable recovery and unstable convalescence. Also there is such a thing as "pseudo-convalescence," in which the mental symptoms of what is practically a life-long insanity are for a time in abeyance: in other words, it is much more easy to give a certificate of insanity than one of sanity. Indeed, of the multifarious duties that appertain to the office of asylum superintendent, it will probably be conceded that none is more onerous than that of deciding as to the propriety of recommending any given patient for discharge.

There can, in truth, be no doubt whatever that the practice of allowing patients out on trial is not only to their own advantage but also to that of the general public, to whom the knowledge of frequent and early relapses, in patients who have been fully discharged as recovered is a growing source of irritation and alarm, besides bringing some measure of disrepute upon the institutions concerned.

Moreover, there is another direction in which this procedure can be turned to the patient's welfare, and it is one which, I believe, it is only necessary to explain thoroughly to asylum committees for them to whole-heartedly adopt. For the section of the Act, under which patients are allowed out on trial, enables the Committee to make a money allowance to the patient, during such absence on trial, up to a sum not exceeding that of the cost of his maintenance in the asylum. It needs no argument from me to show what a boon that must be to the patient faced with the difficulties we have already discussed. The high value my colleagues unanimously attach to the course is borne out by the fact that it has been their custom for many years to include, in the returns to be annually furnished by asylums to the Board, a statement of the number of instances in which these money allowances were granted.

Speaking of my own patients, I think I may say that there was no case in which, if it were feasible to recommend a period of allowance out on trial with a grant of money prior to full discharge, that plan was not adopted. It, however, implied that the patient had a home with either relatives or friends to which to go; and there were unfortunately quite an appreciable number not so blessed, in whose cases it was, therefore, necessary to forego "trial," and to discharge them as recovered to the workhouse. Again and again I had cause to wish that the Association was able to receive such cases



"on trial" into one of their cottage homes, on the understanding that the patient would pay to it the weekly allowance which I knew the Committee would grant. I believe very strongly that if it be possible for the Association's rules to be modified to permit of this, a most useful reform would thereby be effected.

### *Summary.*

The following are the conclusions, or rather suggestions, to which the foregoing remarks are intended to lead up, and which I venture to commend to your consideration :

(1) That while all cases (which as regards public asylums in England and Wales number about 7,000 annually) that have been discharged after undergoing treatment for mental disorder must of necessity benefit by suitable "after-care," there is an appreciable number of them (at least 1,500 a year) for whom it is not only highly desirable, but also urgently required, and of which number only about one quarter at present are assisted by this Association.

(2) That "after-care" for the latter, besides being called for on humanitarian grounds, may, by reason of its preventive power in respect of relapses, be fairly regarded as economically worthy of generous support.

(3) That to be effective, "after-care" must be organised and, as regards its executive, it should, as at present, be in the hands of those experienced in this particular branch of eleemosynary work.

(4) That its organisation should aim at the establishment of branches of this Association, which, although probably not corresponding in number to the public asylums, should at least be as many as there are local authorities either acting alone or in combination for lunacy purposes.

(5) That, as a preliminary step, inquiry should be made of medical superintendents as to whether they would see any difficulty or objection in notifying the central or, when formed, the local offices of this Association, of the intended discharge or allowance out on trial of any of their patients, having, of course, satisfied themselves that each such patient is willing that his (or her) name and other necessary particulars should be communicated.

(6) That it would facilitate the work of "after-care" if the rules of the Association could be so far modified as—

(a) To permit its executive to commence such work, in any case in which they see fit, during a period while the patient is away from the asylum "on trial," and—

(b) To permit further of such patient (or patients) being received while out "on trial" into one of the Association's cottage-homes.

(7) That visiting committees of asylums be urged to take advantage more frequently of section 55 (1) and (2) of the Lunacy Act of 1890, whereby patients who appear to have recovered may, instead of being at once fully discharged, be allowed out "on trial," and may, during such period, be granted an allowance not exceeding the cost of their maintenance in the asylum. It is with confidence asserted that this practice, which is habitually adopted by certain committees, is of the utmost value to the patients, and that by its adoption, early relapses—so vexatious and dispiriting to the authority concerned—are materially prevented.

This would enable such patients to pay a weekly sum to this Association, which would rather more than half meet the Association's pecuniary necessities with respect to those patients temporarily boarded in its cottage-homes.

(8) And lastly, notwithstanding such contributions as just mentioned, it is obvious that to enable the Association to extend its scope as indicated, its available funds must be considerably augmented, and it must be able to count upon a sufficient annual income.

<sup>1</sup> Being a paper read at the Annual Meeting of the After-Care Association, February 25th 1913.

#### DISCUSSION.

Sir JAMES MOODY (Chairman) said he was sure all who were acquainted with the subject would agree with the conclusions drawn by Dr. Bond. The points which had specially appealed to him were, first, the need of discharging more patients on trial into the care of the Association. This he recommended more and more in his own asylum, but sometimes, although he knew a case would benefit by a trial, he was unable to send the patient out on trial because in that case the Association could not give any help. Such cases had to go to the union, where they took their discharge, frequently returning to the asylum in a short time. Secondly, he wished to know whether it would be an infringement of the Lunacy Laws if cases on trial were sent to our cottage homes.

Mr. TREVOR (Commissioner in Lunacy) explained that Dr. Bond's proposal did not involve any infringement of the Lunacy Laws as to illegal charge, as the patient would remain certified and on the books of the asylum.

Dr. HELEN BOYLE said that the only possible discussion of the paper was

applause. She herself was particularly interested in the "fore care" of patients. She pointed out that the work of the Association did not get known, as those who benefitted by it were least likely to talk about it. She thought the Association did a useful work in educating the public in regard to insanity. She also suggested that the name of the Association led to confusion with other "after-care" associations.

Mr. ROXBURY replied that this point had been considered, and that the full title was always now used.

Dr. LORD said that the position of the London asylums was admirably summed up in the paper. He was surprised at the very small number of applications made to the Association as compared with the number of cases discharged. Others perhaps, acted as he did. He personally did not make many applications to it because of the bad moral character of many of those discharged which would be an abuse of its funds and at the same time ineffectual. In every possible case otherwise, he asked the Association's assistance and recommended the usual grant of £3 and equipment. He felt sure that if the work were extended to cases on trial it would prove of much greater service than at present. They had heard of "fore-care" and "after-care" but patients' recovery was often prevented by anxieties as to how things were progressing at home. In destitute cases it was very desirable that some association should supervise the homes during parental detention. It would be of immense advantage in getting the patients well.

Dr. BOWERS spoke of the proposed extension of the work, saying he had had experience from two points of view: first, as a member of the Council of the Association, where he had seen applications brought forward and refused because the word "recovered" had not appeared on the certificate; and, secondly, as a member of the committee of a county asylum, where he had felt much hampered in recommending cases for discharge on trial because these cases could not be taken by the Association.

Dr. PERCY SMITH said that the Association was at present doing as much as it possibly could with the funds at its disposal, and that a large increase would be necessary before it could undertake the care of those discharged on trial. Personally he thought that this work should not be undertaken by a voluntary association, but that each asylum should have a convalescent home to which patients could be sent for a period of probation, and which should be supported by the rates. The expenses would be greatly increased by this extension of the work, as these cases would have to be under special observation and supervision, and might have to be returned to the asylum at once. He pointed out that the Chairman had spoken of cases being sent out to the care of the Association. At present this was not the case, but patients sent out on trial would be sent out into the care of the Association or of the person to whose house they were sent. There was also the question of who was to sign the certificate of recovery. Considering the legal and medical expenses which such an extension would involve, he did not think the Association would be able to deal with trial cases unless it could show a large increase in its funds and in its staff.

Dr. RAYNOR, having thanked Dr. Bond for his paper, said that, of course, the present funds were very insufficient for an increased number of cases. If these cases were taken, quite a different kind of expenditure would be needed, and quite a different kind of home, as many who would take recovered cases would not be willing to receive cases on trial if they thought there was any danger of relapse. There were great difficulties in the way, and unless the present income was largely increased, they could not be overcome; but he thought it would be a great assistance to the medical superintendents, and of the very utmost benefit to the patients themselves, if it could be done. He was sure the Association would consider all that Dr. Bond had said in the most sympathetic manner, and if it were possible to do anything in the direction he had so ably suggested, he was quite sure they would do it.

The BISHOP OF CROYDON said that he was very much struck by the suggestion of the extension of the work of the Association, and if it was hampered by financial stress, he thought it would be most desirable that the Government should be pressed to subsidise such an institution.

Miss HUMPHRIS asked some questions about asylum procedure, which were answered by the Chairman.

Mr. ROXBURY said he had talked the matter over with Dr. Bond, and sincerely hoped the Association would try to do more than it had done in the past, if not by taking cases on trial into the homes, at any rate by visiting them while on trial. A large number of applications were received from cases on trial. These cases go to the workhouse, or board with their friends for a time while their allowance is continued. When their allowance comes to an end, the friends frequently say they must get rid of them, and the cases finally relapse. If these cases had been under the care of the Association from the day they left the asylum, he believed that many of them would not have relapsed. As regards the money question, he believed that if the Association were doing more, it would get more money. Again, if all the asylums would give an adequate money allowance to cases on trial, this could be handed to the Association and would be a great help in meeting the extra expense. Some of the homes were doubtless unsuitable for the reception of trial cases, but others were, such as those under trained mental nurses. He considered it would be desirable to work more on the county system, and that the medical superintendents might do much by bringing the work of the Association before their Committee, which included a large number of influential people. In his opinion it would be much better to help hopeful cases on trial than recovered cases who had been out several months and were on the point of a breakdown. He sincerely thanked Dr. Bond for his paper, which he hoped would be the means of the Association's doing a great deal more work than it had done in the past. In conclusion, he asked all those who would be willing to hold a meeting on behalf of the Association to give in their names.

Dr. BOND said he felt very gratified by the extent of the discussion, which had more than repaid him for any time he had spent in preparing the paper. But it had also revealed one or two misunderstandings which he would like to straighten out. In the first place it would seem that, in the minds of some, there was a marked and important difference between the mental state of a person discharged as recovered and that of another away from the asylum "on trial," and that more serious risk was incurred in receiving from the asylum a patient "allowed out on trial" than in receiving one discharged as recovered. While in a very few cases and in exceptional circumstances that might be true, the members of the After-Care Association might rest well assured that superintendents, who favour and frequently practise the system of allowing patients out "on trial" prior to their full discharge as recovered, do not have recourse to the procedure with any prematurity or with a view to hurrying their convalescing patients out to make room for others, but solely with a view to doing the best they can for the patients concerned, and to enable them, with this aim, to immediately recall their patient in the event of information being sent that evidence of relapse was being shown; whereas, if such a patient had been discharged as recovered, he (or she) could not resume asylum treatment until the full process of recertification had been gone through. In other words, there was practically no medical difference between a patient discharged as recovered and another sent out "on trial": the one was not more likely to relapse than the other, and the technical and legal difference that did exist between the two was to the advantage of the employer or supervisor, in that after despatching notice—by telegram if necessary—to acquaint the superintendent of the existence of symptoms of relapse, he could be sure of the patient's prompt removal. The other fallacy or misunderstanding was a belief entertained by some that the person receiving a patient "on trial" was in the position of a "holder," and was legally responsible for his custody and safety during the period of trial. This was not so, although it was a fact that asylum authorities generally interviewed the relatives about to receive such a patient, and, verbally or by printed instructions, impressed certain advice suitable to the case upon them; but the relative or person receiving the patient assumed no legal responsibility, and during the trial period the patient was a free agent. The clearing up of this second misconception had a bearing on the question that had been raised as to the legality of adopting certain of the suggestions put forward in the paper, upon which question Mr. Trevor had been able to reassure the meeting. Mention had also been made of the desirability of visiting patients on trial: he (Dr. Bond) did not consider that this should be done by people connected with the asylum, as during this period it was expedient to ensure an entirely non-asylum atmosphere. With regard to applications from provincial asylums, he would deprecate as

unfair to London the systematic sending of such cases to be dealt with by the metropolitan (or central) office of the Association; and this objection in his view emphasised the necessity for establishing thoroughly organised provincial branches. A suggestion had been made in the course of the discussion that public asylums should provide convalescent homes in the country or at the seaside, and that the period of trial might be spent there, London with its several large asylums being taken as an example, whence such a movement might well be looked for. In fairness to the London asylums he would, however, point out that in the majority of them there existed in their grounds entirely detached villas or houses, admirably adapted for convalescing patients, through which practically all patients passed prior to their discharge, and which were administered on the open-door principle. But greatly as he believed in their value, in no way in his opinion could residence in them take the place of a period of "on trial" spent in an environment entirely unconnected with the asylum. Besides, it would leave unfulfilled the main objects of his anxiety to see the Association free to render help to patients while on trial, namely to enable employment to be found for patients prior to their full discharge, and to provide a means whereby the necessary funds would be available for the critical first few weeks.

Dr. MACARTNEY, in proposing a vote of thanks, pointed out the difficulty of segregating the cases in their homes.

The vote of thanks was seconded by Dr. OGILVY, and carried.

*Emanuel Swedenborg: A Study in Morbid Psychology.*

By HUBERT J. NORMAN, M.B., Senior Assistant Medical Officer, Camberwell House.

"LET us examine," says Swift, in his "Digression concerning Madness" in a *Tale of a Tub*, "the great introducers of new schemes in philosophy, and search till we can find from what faculty of the soul the disposition arises in mortal man of taking it into his head to advance new systems, with such an eager zeal, in things agreed on all hands impossible to be known; from what seeds this disposition springs, and to what quality of human nature these grand innovators have been indebted for their number of disciples; because it is plain that several of the chief among them, both antient and modern, were usually mistaken by their adversaries, and indeed by all except their own followers, to have been persons crazed or out of their wits; having generally proceeded in the common course of their words and actions by a method very different from the vulgar dictates of unrefined reason; agreeing, for the most part, in their several models, with their present undoubted successors in the Academy of modern Bedlam . . . Of this kind were Epicurus, Diogenes, Apollonius, Lucretius, Paracelsus, Des Cartes, and others; who, if they were now in the world, tied fast, and separate from their followers, would, in this

undistinguishing age, incur manifest danger of phlebotomy, and whips, and chains, and dark chambers, and straw." So wrote the greatest satirist in his pungent and acrid way; and there can be little doubt but that, had he lived to become acquainted with some of Swedenborg's later writings, he would have classified him among that miscellaneous group of "others." It may seem to some a work of supererogation once more to state the facts which lead to this conclusion; but it is hoped that they will realise that in this recapitulation the object is not to asperse the reputation of a great man, but, by setting forth the story of his life, to show why it was that so great a change was wrought in him, and why he turned from the scientific pursuits of his earlier years to the visionary speculations of his later days. By undertaking such a work a writer is certain to incur the odium of those who rigidly maintain their unshaken belief in the sanity of their prophet; that is regrettable, but regrets will not alter facts.

It may be said that after Maudsley's masterly sketch (1) there is no longer any need to dwell upon the morbid psychology of Swedenborg, and if the generality of readers were in possession of that essay the saying would be true. But many years have elapsed since it was written, and it is to be feared that only too few are conversant now with the writings of one whose gift of vivid expression and whose fascinating style should alone serve to perpetuate works whereof the scientific value is not slight. The present writer may be allowed to record his gratitude to one whom it is his lot, however humbly, to follow, and, in some degree, to emulate. Nor is the reiteration of the facts so apparently unnecessary when it is recalled that Maudsley's writings on Swedenborg provoked the most bitter opposition on the part of Swedenborg's followers. Dr. Tafel, perhaps the greatest authority on Swedenborg, wrote: "We venture to express a hope that the case of the learned author of *Body and Mind* . . . is an isolated one among the representatives of medical science in Great Britain" (2). While another writer (3), whose violence of expression is sufficiently amusing to warrant quotation, said: "The writings of Dr. Maudsley, in particular, furnish a flagrant example of an audacious and mischievous attempt to describe purely mental phenomena as if they were nothing but higher activities of brute matter. The perverted ingenuity displayed in this

hopeless (one might be justified in saying *insane*) attempt is quite deplorable. The noxious principles he advocates, with all the ardour and virulence of the most relentless religious fanatic, are, indeed, essentially identical with the 'psychological' teachings of Professors Bain and Carpenter, and of Mr. Herbert Spencer." And the same writer, in another place, describes Dr. Maudsley as "merely maundering." It may be added that this fiery opponent was a clergyman, but one who was not apparently accustomed to mould his sayings in accordance with the Solomonic wisdom embodied in the proverb that "a soft answer turneth away wrath"!

As an example of the profoundly uncritical attitude which has been adopted in a recent biography of Swedenborg, and as further illustrating the need for stating afresh the salient features of his life-history, the following excerpt should prove of interest: "Swendenborg's case," says this writer (4), "is indeed unique. We can understand a monk or a nun, or even a Protestant enthusiast, dreaming dreams and seeing visions; but for a man living an active life in the world, a mathematician and logician, and a devotee of natural science, to succumb to mental illusions seems most unlikely." But Auguste Comte, "the initiator of the Positivist philosophy," was, as Harrison (5) informs us, "for seven months in an asylum under the care of Esquirol." Newton had an attack of "phrenitis," which lasted for some eighteen months, and it is recorded that at about his forty-ninth year he began to concern himself with the prophecies of Daniel and other theological questions, and to these he latterly gave himself up altogether (6)—a curiously similar history to that of Swedenborg. Cardan, physician and mathematician, one of the most eminent men of the sixteenth century, was influenced by delusions of persecution; the "demon" of Socrates was no mere literary artifice, but definitely a morbid obsession, a figment of a disordered imagination—indeed, Sir Alexander Grant, in his learned commentary on Aristotle's *Ethics*, draws a parallel between Swedenborg and Socrates in this respect; and other instances might be cited if it were necessary further to disprove the assertion that Swedenborg's case was "unique." Nor can the further statement, made by the same writer, that Swedenborg remained "of undoubted sanity, even to the very end of his life," supported, as he asserts it to be, by "the testimony of the best informed

and most reliable witnesses," carry conviction when the facts are clearly before us.

Swedenborg, who was born in Stockholm in 1688, was handicapped from the first by a morbid heredity. His maternal grandmother, as Tafel informs us (7), "in consequence of a long and severe illness, became diseased in her mind and committed suicide in 1672." His mother, who was married in 1683, died at the early age of thirty, after giving birth to nine children, of whom Emanuel was the third, and two of her offspring died in childhood. His father was a busy, bustling cleric, of whom one of Swedenborg's biographers (8) remarks, that "peculiarly notable in Swedberg<sup>(1)</sup> was his omnipresent self-esteem: in all affairs the Lord was on his side, and the Devil on his adversary's." He was a man of ceaseless energy and a most prolific writer; indeed, he was characterised by an itch for scribbling even greater than that which later afflicted his son when he poured forth his discursive exegetic treatises. "I can scarcely believe," says the worthy bishop, "that anybody in Sweden has written so much as I have done, since, I think, ten carts would scarcely carry away what I have written and printed at my own expense. Yet there is as much, verily, there is nearly as much, not printed." A cynic might suggest that if it had been the hard fate of Emanuel to act as proof-reader for his verbose parent, it might have been a sufficient cause for his mental breakdown! It appears that Swedenborg's father showed in a slighter degree the instability which later characterised, though more markedly, Swedenborg himself. As a student he had "one or two remarkable visions of angels" we are informed. It may, of course, be objected that most students make similar claims; but in the case of Swedberg there was, we gather, a difference. "His belief [in the intimate association of angels with man] was strengthened by several visions which he had at various times," says the same biographer (9). "Moreover . . . he was possessed of healing or exorcising power, which he exercised once or twice with beneficial effect." Which statement, if it proves nothing else, affords at the least further evidence of the credulity of yet another writer on Swedenborg. In brief, there is evidence that Swedberg, too, was influenced by auditory and visual hallucinations.

With such an heredity it does not come as a great surprise



when we learn that even early in his life Emanuel Swedenborg showed signs of instability. Nor was the encouragement lacking for the production of a prig, if not indeed for the more grave issue of unbalanced reason.

In a letter which he wrote later in life to his friend, Dr. Berger, Swedenborg states that—"From my fourth to my tenth year my thoughts were constantly engrossed by reflecting on God, on salvation, and on the spiritual affections of man. I often revealed things in my discourse which filled my parents with astonishment, and made them declare at times, that certainly the angels spoke through my mouth. From my sixth to my twelfth year, it was my greatest delight to converse with the clergy concerning faith; to whom I often observed that charity or love is the life of faith." If anyone is prepared to maintain that this was the right and proper method to adopt in regard to an immature and nervous child, it may truly be said that his zeal outruns his discretion; and we are divided between amazement at the ineffable stupidity of the parents who encouraged such morbid and precocious pietism, and pity for the child whose earliest years were in so great a degree given up to speculative theology and premature vaticination. There were, however, even more marked signs than these which might have served as danger-signals to less perfervid parents. Swedenborg recorded them himself in his writings, and there have not been many famous people who have left so intimate a revelation of disordered brain-action as he has done, though much information has been given by Cowper, Pascal, De Quincey, and others of their hallucinations and delusions. Whilst he was yet young he was subject to a condition, probably similar to what is seen in many nervous children, of temporary cessation of respiration or possibly of trance. "My respiration," he says, "has been so formed by the Lord as to enable me to breathe inwardly for a long period of time, without the aid of the external air, my respiration being directed within, and my outward senses, as well as actions, still continuing in their vigor, which is only possible with persons who have been so formed by the Lord . . . I have also been instructed that my breathing was so directed, without my being aware of it, in order to enable me to be with spirits, and to speak with them"; and he further states that this even took place "during my infancy, when I tried purposely to hold

my breath" (Diary, 3317, etc.). Obviously it cannot be maintained that this is an extremely unusual state of affairs. Dr. Garth Wilkinson, who was well aware of the practices of the fakirs, was quite prepared nevertheless to take Swedenborg at his own valuation, and to draw a distinction where there was no difference. "There is, however, a difference," he maintains "(10), between Swedenborg's state, as he reports it, and the modern instances, inasmuch as the latter are artificial, and induced by external effort, whereas Swedenborg's was natural also, and we may say congenital, was the combined *régime* of his aspirations and respirations, did not engender sleep, but was accompanied by full waking and open eyes, and was not courted in the first instance for the trances or visions that it brought." It will be more fair after all to allow a difference : the difference between a transient, nervous disequilibrium and the incipient stage of what was eventually to become permanent mental disorder.

Fortunately, however, Swedenborg was endowed with sufficient resisting power to enable him to avert the evil day which was to witness the breakdown of his mental powers. He did not pass into a condition of early dementia, though such a fate would not have been a cause for great surprise when his heredity is considered. It was not until he had reached the age of fifty-six that a marked change took place in him, though there were further warnings which heralded the onset of the more grave condition. In the intervening years Swedenborg occupied himself with tireless energy in acquiring knowledge in many and various branches of science, and in giving forth the results of his reading and of his observation in such a voluminous manner as reminds us of that worthy cleric, his father, with his cart-loads of manuscripts. This scientific period may be said to have lasted from 1709, when he was twenty-one years of age, and when he took his degree of Doctor of Philosophy, until 1744, when he was fifty-six and when he published *The Animal Kingdom*. Throughout his life he travelled regularly in various parts of Europe : in 1710 he first visited London and at that time spent a year in England. When next he visited London in 1744 the scientific period of his life was to all intents and purposes ended ; hitherto, as Maudsley (11) says : "His speculations were directed to practical ends ; his daring flights were made from a basis of scientific facts, and aimed at some directly useful

result ; he was not yet, at any rate, a mere dreamer of inflated dreams."

In 1743, Swedenborg went to Holland to arrange for the publication of the work already noted, *The Animal Kingdom*. He travelled alone as was his wont, for he seems ever to have been a man who did not form intimate friendships. There is not, therefore, any record of his doings now extant except a diary, fragmentary in character, which he kept whilst on this journey. It is a curious and interesting document, showing as it does the onset of his mental change ; or of, in the words of one of his biographers, the "dawn of a new life" or the "spiritual world opened." The diary commences in July, 1743, with brief and matter-of-fact notes of his doings and of the places he visited ; it so continues until August of the same year and then suddenly breaks off. It is not certain exactly in which month the symptoms became more pronounced in his case because no date is recorded in the diary until March, 1744—a space of six months (12). But whilst he was at the Hague (1743-44) there are entries which clearly go to prove that the change was taking place ; some examples may be given to illustrate this and to show the incoherence and the eroticism which characterised his state at that time : "How I resisted the power of the Holy Spirit, and what then happened. How I saw Hideous Spectres without life, fearfully shrouded, and moving in their shrouds ; also an animal which attacked me but not the child. . . . How a woman lay herself at my side as if I were awake. I wished to know who she was. She spoke softly. She said she was pure, but she had a bad smell. I believe she was my Guardian Angel because then the temptation began." It may, of course, be maintained that these are merely records of bad dreams such as anyone may experience ; but when the evidence which this diary affords is taken in conjunction with that which remains to be stated it will be seen that it is no unfair inference to assert that, even if they were only dreams, they were yet undoubted symptoms of the portending mental change. "Not without many signs and presages did the Spiritual World open to Swedenborg" is the manner in which a biographer expresses it ; and Swedenborg, speaking impersonally of himself, states that : "For many years before his mind was opened, and he was enabled to speak with Spirits, there were not only dreams informing him of the

matters that were written, but also changes of state when he was writing, and a peculiar extraordinary light in his writings. Afterwards there were many visions when his eyes were shut ; light miraculously given ; Spirits influencing him as sensibly as if they touched his bodily senses ; temptations also from evil spirits, almost overwhelming him with horror ; fiery lights ; words spoken in early morning ; and many similar events." (*Spiritual Diary*, 2951.)

Swedenborg continued to make entries in his diary recording his dreams, visions and temptations from March, 1744, until May 20th in the same year, and their character is such that anyone needs be only superficially acquainted with the writings of the insane to draw the inevitable conclusion. In March we find the following entry among others : " I wanted medicine for my disease. I got a number of pence to buy it with. I took half of them, and selected some from the other half ; but gave all back again. The man said, that he would buy me something for my cure. This signifies my corporeal thoughts as being coins with which I tried to cure myself, but it was of no use. Afterwards I came out and saw many black beetles ; one was thrown at me. I saw that it could not use its feet. I believe that this means that natural reason cannot harmonise with spiritual." The entries continue in much the same strain until May, when Swedenborg arrived in London, this being his second visit to that town. Whilst he was in London Swedenborg went to lodge with "one Brockmer in Fetter Lane," and this man gave to a Swedish clergyman, who afterwards printed it, an extremely interesting narrative relating to Swedenborg's state at that time. It appears to fill in the hiatus in the diary which breaks off for three weeks from May 20th, 1744. Brockmer relates how Swedenborg came to live with him, and then goes on to tell how on one occasion the maid came to the coffee-house where he was at the time, saying that she thought that "something strange must have happened to Mr. Swedenborg." Whereupon Brockmer returned home, and, having knocked at the door of Swedenborg's room, and having been informed that his lodger desired to be left alone, he was then going upstairs when, as he states, "he rushed up after me, making a fearful appearance. His hair stood upright, and he foamed round the mouth. He tried to speak, but could not utter his thoughts, stammering long before he could get out a word.

At last he said that he had something to confide to me privately, namely, that he was Messiah, that he was come to be crucified for the Jews, and that I (since he spoke with difficulty) should be his spokesman, and go with him to-morrow to the synagogue, there to preach his words." This was about nine o'clock in the evening, and the excitement continued ; so on the following day Brockmer endeavoured to induce Swedenborg to go with him to see a Dr. Smith. This, however, Swedenborg would not do, but "went to the Swedish Envoy, but was not admitted, it being post-day. Departing thence, he pulled off his clothes and rolled himself in very deep mud in a gutter. Then he distributed money from his pockets among the crowd which had gathered. In this state some of the footmen of the Swedish Envoy chanced to see him, and brought him to me very foul with dirt. I told him that a good quarter had been taken for him near Dr. Smith, and asked if he was willing to live there. He answered, 'Yes.' I sent for a coach, but Mr. Swedenborg would walk, and with the help of two men he reached his new lodging.

"Arrived there, he asked for a tub of water and six towels, and, entering one of the inner rooms, locked the door, and spite of all entreaties would not open it. In fear lest he should hurt himself, the door was forced, when he was discovered washing his feet, and the towels all wet. He asked for six more. I then went home, and left six men as guards over him. . . . After this I continued to visit Mr. Swedenborg, who at last had only one keeper. He many times avowed his gratitude for the trouble I had with him. He would never leave the tenet, however, that he was Messiah.

"One day when Dr. Smith had given him a laxative, he went out into the fields and ran about so fast that his keeper could not follow him. Mr. Swedenborg sat down on a stile and laughed. When his man came near him, he rose and ran to another stile, and so on."

"When the dog-days began he became worse and worse. Afterwards I associated very little with him. Now and then we met in the streets, and I always found he retained his former opinion." So much for Brockmer. White, whose biography of Swedenborg in two large volumes, extending well over a thousand pages, is some indication of the labour he undertook in the cause of his hero and of his right to speak

authoritatively concerning him, comments upon this narrative as follows (13): "Plainly a straightforward and well authenticated story, possibly somewhat coloured by the influence of Mathesius [the Swedish clergyman] and by the inevitable treachery of a twenty-four years' memory ; but fitting into the incoherences of the diary with singular credibility."

Obviously, then, Swedenborg had an attack of mania in 1744. This certain of his followers are prepared to admit ; but they deny that he continued to be influenced by delusionary ideas after the acute symptoms passed off in this attack. Thus White—"I freely admit, for it would be sheer perversity to do otherwise, that a production like the *Book of Dreams* would be held as sufficient warrant for the consignment of any author to a lunatic asylum ; but, having made this admission, I do not see that we are a bit wiser, or that we have made the slightest advance towards a comprehension of Swedenborg's case. It is only pert scientific ignorance, which imagines that Swedenborg's life and writings for seven and twenty years subsequent to 1745 are in any way accounted for by asserting that he was out of his mind in 1744. Not all the jargon gathered from the most learned treatises of the most enlightened 'mad doctors' will avail to impose such a conclusion on any intellect in which common-sense is stronger than scientific credulity."

It is, however, rather pert nescience which fails to realise that it is not necessary for anyone to rave incoherently and persistently to behave in an insane manner in order to give rise to doubts as to his sanity. "It is a vulgar and mischievous error, springing from the grossest ignorance of insanity, to suppose that a person who speaks rationally and behaves with propriety cannot be mad, as it is also to suppose madmen necessarily incapable of rational, intellectual exertion"(14). Every-day experience goes to prove this ; and it is unnecessary to labour the point except with those whose ideas of insanity are apparently best epitomised in the Hogarthian Bedlamites.

After the acute attack had abated Swedenborg appeared to have returned, so far as the superficial observer noticed, to his normal state ; but he was a changed man, and from that time onwards until his death in 1772 he continued to be influenced by hallucinations of various kinds, and upon these he based

the delusionary ideas which are associated with his name. He practically gave up his scientific work, and busied himself, as many persons afflicted with delusional insanity do, with reading and interpreting passages of Scripture. Volume after volume of exegetical literature, of portentous length for the most part, and frequently prolix to the degree of weariness, poured from his pen. There are, of course, gleams of the former high intelligence in this welter of words; but for the most part it is for the general reader stale, flat, and unprofitable. "We shall find much in his later writings," says White, who, keen student of Swedenborgian literature as he was, seems to have found these later works rather puzzling, "which will remind us of his earlier, but the threads are so intertwined and modified in the new texture that dissection usually ends in destruction, or mystification." That is, however, just the kind of writing that is useful from the prophetic point of view; as Montaigne, in his essay *Of Prognostications*, says: "Above all, that which gives them the greatest scope is the obscure, ambiguous and fantastic part of their prophetic jargon, to which their authors give no clear interpretation, to the end that posterity may make what application of it they please."

For some twenty-seven years, Swedenborg continued to record his visions and to promulgate the system of theology which still counts numerous adherents. Life is too short to enable the ordinary person to cope fully with the enormous amount of printed matter contained in his many works; and it is doubtful whether anyone living can truthfully say that he has read the whole of Swedenborg's writings. Contemplating those numerous volumes one can well understand Emerson designating him "one of the mastodons of literature." There was, however, no reason, apart from the physical effort entailed in guiding the pen, why his output should not have been even larger when we consider the character of what he wrote. Through all these later writings there runs the same refrain: "This I saw in the World of Spirits, in Heaven or in Hell. These things were told me by Spirits, by Angels, or by Devils." It was natural that these records should be accepted by a certain number of people, for there appear to be at all times those who are willing to believe that certain subjective states which arise from disordered functional activity are really the objective conditions which the one who suffers

them believes them to be. It is certainly one of the most interesting chapters in the history of mankind, that which we may designate the Influence of Hallucinations upon Thought. The "baseless fabrication of a vision"—for that men and women have suffered and died, for that there have been torturings and strife. And each sect asserts with complacency the infallibility of the visions upon which their creed is based. "Man has a natural tendency to fixed delusions," says Reil(15), "for, in a state of health, he is not quite free from fixed ideas, which will not pass before the judgment-seat of sound reason. From habit, indolence, and weakness of the understanding, when opposed to fancy and feeling, he suffers them to stand as axioms, without reflecting how far they can be maintained." At the same time that these ideas are maintained there seems to be an almost innate tendency to deny the verisimilitude of the records upon which opposite beliefs are based. "It is not surprising that the disciples of Swedenborg resent indignantly the complacent assurance which scouts his revelations as hallucinations, yet accepts, without question, the like supernatural revelations of its own creed as authentic"(16).

That Swedenborg did continue to experience what are described as his visions is, of course, undisputed, and his most enthusiastic supporters are naturally those who believe most fervently that he did remain in such a condition as may be described by the phrase, "undergoing frequent revelations." It is perhaps unnecessary to enter at any length into the actual records which he has left of his experiences; even casual reference to his works is sufficient to prove that throughout the twenty-seven years he was for the most part in "inter-course with the spirit world." In 1769 he writes: "Whatever of worldly honour and advantage may appear in these (the honours which he had received in Sweden), I hold them in low esteem when compared to the honour of that sacred office, to which the Lord Himself has called me, who was graciously pleased to manifest Himself to me, his unworthy servant, in a personal appearance in the year 1743; to open in me a sight of the Spiritual World, and to enable me to converse with Spirits and Angels; and this privilege has been continued to me to this day." Again, in 1771, when he was in his eighty-third year, he writes: "Since the Lord cannot manifest Himself in person, and yet He has foretold that He would come and establish a



new church, which is the New Jerusalem, it follows that He will effect this by the instrumentality of a man, who is able not only to receive the Doctrines of that Church in His understanding, but also to make them known by the Press.

"That the Lord manifested Himself before me, His servant, that He appointed me to this office, afterwards opened the sight of my spirit, and so let me into the Spiritual World, permitting me to see the Heavens and Hells, and also to converse with Angels and Spirits, and this now continually for many years, I attest in truth ; and further, that from the first day of my call to this office I have never received anything relating to the Doctrines of that Church from any Angel, but from the Lord alone, while I was reading the Word." (17)

Let us review as briefly as possible some of the "knowledge" which Swedenborg thus obtained. "From experience I have sometimes learned," he writes in 1747, "that evil spirits can by no means desist, but they must pertinaciously persist, in doing evil to man, and that so long as they have the opportunity they persist for several days, and, indeed, continually, as I have sometimes clearly seen from experience, since by their presence they have inflicted pains upon different parts of my body, as upon the feet so that I could scarcely walk, upon the dorsal nerves so that I could scarcely stand, and also upon different parts of the head with such pertinacity that the pains continued for some time. I was clearly instructed from those who conversed with me that such evils are inflicted upon man by evil spirits" (18).

"Afterwards those spirits who constitute the province of the kidneys desired to explore and examine them, and they began, in their usual way, to suspect evils concerning them ; they were, however, modest, saying that they did nothing of themselves but from others, so that they did not seem in any manner to have provoked or infested them ; wherefore also they were rebuked by me, but they still persisted, and the one with whom I spake began to swell out and become so great that with his body he could, like a giant or Atlas, reach, as it were, heaven. . . . The spirit in question had wooden shoes, which he cast at the other spirits—an act which signified that such spirits consider as of little account effects or ultimates, which they cast at those who constitute the province of the kidneys, because they evacuate the impure serosities." "The

region of the heel of the right foot, which consists of falsities, now seems not yet sound ; but of this, if the Lord think worthy, I shall treat elsewhere, because I do not yet know for certain how it is with the region of the heel of the right foot" (19).

*Ex pede Herculem ?*

Suicidal impulse was apparently present. "Some time before the faculty with Spirits was opened in me, I was impelled to commit suicide with a knife. The impulse grew so strong that I was forced to hide the knife out of sight in my desk" (20).

Evidently Swedenborg had no high opinion of the Society of Friends, although, as is well known, they were then, as now, esteemed by all reasonable people for their probity and integrity. "When I awoke in the night, I felt in the hair of my head a multitude of very small snakes. It was perceived that Quaker spirits had been plotting against me whilst I was asleep, but without effect": and again, "The secret worship of the Quakers, sedulously concealed from the world, was made manifest. It is a worship so wicked, execrable and abominable, that were it known to Christians, they would expel Quakers from Society, and permit them to live only among beasts. They have a vile communion of wives" (21)—but it is unnecessary to continue the quotation. Where is the charity of those who will not allow "pert scientific ignorance" to advance the plea of *non compos*?

In the *Arcana Cælestia*, published between the years 1749–1756, Swedenborg continues the records of his visions, interspersing them between his commentaries on the books of Genesis and Exodus. The evil spirits pursue him through these twelve lengthy volumes! "Knowing, therefore, that I was a man in the body, they were continually striving to destroy me"; and he proceeds with much truth, "Hence it appears how dangerous it is for man to be in a living consort with spirits, unless he be in the good of faith" (22). It was of the *Arcana Cælestia* that the Rev. William Law, who was a contemporary of Swedenborg and who wrote *A Serious Call to a Devout and Holy Life*, said, "Now can any man of erudition and in his right senses adopt such meaningless stuff for Divine revelation, or judge of it as other than the profusions of a distempered brain? . . . Neither is it sustained by one single argument or proof, but is to be received, however absurd, unintellectual, and where intelligible, inconsistent, because of the *ipse dixit* of a

fantastic mineralist, who has betrayed through all his works a notorious ignorance of both the diction and documents of theology. Interspersed with his doctrines we find many false distinctions, Socinian tenets, deistical reasonings, and mystical whims. These, however, are generally so feebly enforced as to betray, not only an utter ignorance of Christianity, but a disordered intellect. . . . A philosopher and novice in the revealed Word, when turned enthusiast, is of all men the most liable to heresy ; but the enormities of this Baron's deliriums argue both the most abject illiterature with most prodigious blindness and infatuation "(23). Saul among the prophets indeed ! Certainly the author of *A Serious Call* leaves us under no misapprehension as to the opinion which he entertained of Swedenborg's mental state.

From his subsequent works, of which the chief are *Heaven and Hell* (1758), *Angelic Wisdom* (1763), *The Delights of Wisdom relating to Conjugal Love* (1768), and *The True Christian Religion* (1771), passages might be cited to prove the continuance of the visionary condition : the same exaltation, the same sublime self-sufficiency, the fixed belief in a divinely appointed mission ; but the citation of further extracts is, the writer thinks, a work of supererogation in view of the evidence already adduced. Swedenborg leaves us in no doubt as to the state of mind in which he was from the epoch of his enlightenment ; and those who were about him during his life-time have left records of his habit of conversing with imaginary people. There were frequently visual as well as auditory hallucinations, and it is stated that he would usher his imaginary interlocutor from the room before admitting a tangible visitor.

It was certainly fortunate that the insane ideas which influenced Swedenborg—the persecutions by unseen agencies, the occasionally inimical attitude of those seen, the mocking voices, the evil odours, the nauseous tastes, the hideous and unclean spectres—did not cause his conduct to be more markedly insane than it is reported to have been. Such delusions might easily have given rise to active suicidal or homicidal impulses ; and, as it has been noted already, the idea of suicide had been present in his mind. But with it all there was the feeling of exaltation, and that the sufferings were allowed by the Deity or brought about by the enemy of mankind, which never passed into a belief that those about him

were responsible for his afflictions, and which consequently did not render it necessary for him to retaliate upon human enemies. Indeed, the record of his life goes to prove that he was an amiable, inoffensive, undogmatic man, simple in his tastes, plain in dress, an indefatigable worker.

It is only to lay minds that such cases present any difficulty; yet there are some psychologists, of whom Brierre de Boismont (24) may serve as an example, who maintain that certain individuals have been selected to act as true prophets as contradistinguished from false prophets and the insane. Apparently thereafter selection becomes a question of sectarian bias, or simply of personal predilection or of idiosyncrasy; or, as one writer (25), who has dealt at some length with this question, says, "The test of true visions is not always psychological; it is in the Roman Catholic Church frequently doctrinal." The more closely, however, this writer contrasts the false prophet, the true prophet, and the insane, the more cogently is the conclusion forced upon us that the phenomena have a common basis; and any attempt at dissociation simply leads to hopeless confusion. The stumbling-block in the way of right interpretation of visionary or ecstatic states so far as most people are concerned lies in the misconception of what the term "insanity" connotes.

Disordered brain action does not always reveal itself in alteration of conduct, just as orderly cerebral processes take place without conduct, as evinced by muscular action of whatever sort resulting. It is a question of degree, not of kind. Until this misunderstanding is cleared away there will be dispute as to such cases as that of Swedenborg. "The vulgar notion that a madman must be incoherent, or dangerous, or furious, prepared those who had read his extraordinary revelations to find something strange in his behaviour; and when they were introduced to a calm and courteous old gentleman who conversed sensibly in all ordinary subjects and related his extraordinary spiritual experiences with a quiet and assured confidence, they were naturally surprised and found it hard to believe that his stories had not some real foundation. How little warranted by facts such a conclusion was, an hour's experience in a lunatic asylum would have proved to them" (26). Of the truth of that statement there can be no dispute; and it is exemplified by daily experience; nor, indeed, is it

absolutely necessary to limit the experience to the inside of an asylum! That wise philosopher, Thomas Hobbes, was not unacquainted with this aspect of the matter. "If some man in Bedlam should entertaine you," he remarks, "with sober discourse; and you desire in taking leave to know what he were, that you might another time requite his civility; and he should tell you he were God the Father; I think you need expect no extravagant action for argument of his madnesse" (27).

Immanuel Kant, who was a contemporary of, and, indeed, corresponded with, Swedenborg, had decided views on the question of the treatment of visionaries. "I do not at all blame the reader, if, instead of regarding the spirit-seers as half-dwellers in another world, he, without further ceremony, despatches them as candidates for the hospital, and thereby spares himself any further investigation. . . . If, formerly, it was found necessary at times to burn some of them, it will now suffice to give them a purgative. Indeed, from this point of view, there is no need of going so far back as to metaphysics for hunting up secrets in the deluded brain of dreamers. The keen Hudibras could alone have solved for us the riddle, for he thinks that visions and holy inspirations are simply caused by a disordered stomach" (28). From this it will be seen that there could be little use in adducing Kant as a supporter of Swedenborg, although, as a matter of fact, this has been done; and, dealing with this subject, Lewes remarks that in regard to "Kant's relation to Swedenborg, unjustifiable use is often made by the admirers of the latter, who proclaim with emphasis that Kant testified to the truth of Swedenborg's *clairvoyance*. He did nothing of the kind. In his *Letter on Swedenborg*, he narrates two of the *reported* cases of Swedenborg's clairvoyance, and says he knows not how to disprove them, they being supported by such respectable testimony; but he nowhere testifies to them himself" (29).

Swedenborg died in London in 1772 at the age of eighty-four, and apparently he retained the ideas of his divinely appointed mission up to the last. There are few sadder histories than his. When we contemplate the intellectual attainments which characterised his earlier years, and the notable scientific work which he achieved, it is lamentable to think of the pass to which mental disorder brought him,

causing him to spend his latter days in burying under vast piles of dreary disquisition the works on which his fame should really rest. Exhumation is, however, not only possible, but is actually in process; and it is believed that in time Swedenborg will take a high place, not only among the thinkers of the eighteenth century, but among the learned men of all time.

That Swedenborg, as visionary, should have found followers is not surprising, for at all times in the world's history there have been many prone to accept the dogmatic assertions of visionaries, or the spurious—but none-the-less dogmatic—asseverations of charlatans as veridical. No claims are too absurd, no statements too paradoxical, provided they are advanced with sufficient emphasis. Mental evolution is but slow, and ancient animistic beliefs still permeate our later civilisation. We call them by other names, but essentially they are the same.

Intellectual progress is to be noted, however, in this, that, whereas formerly these crude animistic conceptions were universally predominant, there are now many whose minds are freed from the trammels of degrading superstitions. "There is no surer index of the intellectual stage of any people than the degree in which belief in the supernatural, and especially in the activity of supernatural agents, rules their lives. The lower we descend, the more detailed and familiar is the assumption of knowledge of the behaviour of these agents and of the nature of the places they come from or haunt" (30).

We have not yet reached the stage in which we have definite criteria whereby we can classify accurately all phenomena; but, as we hope for continued progress, we cannot, remembering the trust placed in us to interpret them as faithfully as in us lies, fail in our duty by omitting to demand adequate data from those who advance bold assertions apparently unsupported by reasonable proof. It was the method of Socrates, and we have to confess that in many instances we have not advanced beyond it. Finally we may add, as worthy of the consideration of all those who are too prone to hasty assumptions in matters of belief, these wise words of Maudsley's: "Illusory visions of the supernatural certainly occur, having features exactly resembling those of the genuine visions which it is not yet certain do occur; that the evidence of them, whether they be natural illusions or genuinely supernatural, rests alone, and can only rest, in each

case on the personal consciousness and testimony of the individual who is subject to them; that there is no criterion by which the false vision can be distinguished infallibly from the real one, either by the individual or by others, the standard of common experience not being in the nature of the case available. He will take due account also of the fact that hallucinations have been seen in all places and at all times, that everywhere and always they have been thought to be visions of supernatural beings and events, and that the visions that have been unanimously supernatural in one age have been unanimously owned to be hallucinations in subsequent ages" (31).

(1) "In 1719 the Swedberg family was ennobled by Queen Ulrica Eleanora, and from this time our author bore the new name of 'Swedenborg,' by which his nobility was signified, and took his seat with the nobles of the Equestrian Order in the triennial assemblies of the states."—*Emanuel Swedenborg*, by Dr. J. J. Garth Wilkinson.

*Note.*—An excellent account of Swedenborg is to be found in one of Dr. W. W. Ireland's volumes of essays: *Through the Ivory Gate, Studies in Psychology and History* (Edinburgh: 1889).

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*A Brief Account of Darenth and its System of Industrial Training.* By Dr. F. O. SPENSLEY.

FORTY years ago at Hampstead Asylum under the Metropolitan Asylums Board, an attempt was made to give the patients under sixteen some instruction in music and singing and also in simple work in school—an idea borrowed from Earlswood Asylum. This was apparently so successful that the Board suggested the building of a schoolroom and shoemaker's and tailor's shops.

In 1874, the Metropolitan Asylums Board obtained permission from the Local Government Board to purchase a site for the separate treatment of imbecile children, and pending the selection of this site and the completion of the erection of the schools, they hired the London Orphan Asylum at Clapton for this purpose. Dr. Fletcher Beach was its first medical superintendent. In 1876, the foundation stone of Darenth Training Schools was laid, the builder being J. Perry, who also built St. Thomas's Hospital. The first return of the value of patients' labour was in 1877 at Clapton, when it was quoted at £66 5s. 7d.

The next step was taken in that year, when it was pointed out that the training of the children would be wasted if, at the age of sixteen, they were transferred to the ordinary imbecile asylums under the Board to be herded with other adult imbeciles to walk the airing courts.

Therefore it was decided to build adjacent to the schools "two blocks for 120 male and 120 female adults, so that the beneficial results of the training in the schools should not be thrown away. Grown-up children could thus make clothing



and boots for the school's children, and by charging a fair price for labour their cost of maintenance could be reduced to a small amount."

The Local Government Board concurred with this, but recommended the strict elimination of the hopelessly *incurable*. This the sub-committee altered to hopelessly *unimprovable*. One mentions this because this is the first time the classification between the *improvable* and *unimprovable* imbecile, which now means so much in Darenth, occurs. Subsequently these two wards grew into the adult asylum with 1,052 beds.

In 1879, the training school was opened, and in the first few months of its existence the obstruction caused by the presence of large numbers of unimprovables, an obstruction which existed from that time until quite lately, made itself felt. One reads in the minutes of the Metropolitan Asylums Board that "thirty male unimprovables were transferred to Leavesden and Caterham, there being no room for the female unimprovables in those asylums."

At this time there were in all 67 male and two female patients employed in industrial work. The shops were tailors', shoemakers' and carpenters'. Only two female patients worked at sewing.

There was also a fife-and-drum band and the patients were taught drilling. In 1880, a sewing machine was instituted for the instruction of patients. In 1888, the pavilions were built for 440 quite unimprovable younger patients in order to clear the training schools of this impediment.

From this it will be gathered that from the commencement Darenth was intended to be a colony for the industrial training of improvable imbeciles.

To pass from the opening of Darenth Schools in 1879 to the year 1904, when Dr. Rotherham became medical superintendent, we see that the progress made in the development of the original motive consisted in an increase of patients at work in the shops from 69 to 165, but this apparent increase really represents a drop in the percentage of the total number of patients in residence from 16·7 *per cent.* to 9 *per cent.*

The only new industries added were those of wood-chopping and basket work, and in these the work done was undertaken more as a means of passing the time of the patients than of turning out anything of practical use. Carpentry had failed.

Until 1904 the only useful work done was repair work for this institution, and no work for outside was done with the exception of some baskets for Rochester House in 1901.

The band and drilling had ceased to exist.

From 1904 onwards, the original ideas of the Board in building Darenth have been developed. There have been added shops in which the following industries are carried on : —Mat-making, brush-making by wire-drawing, and pan-work, envelope and paper-bag making, tinsmiths' work, carpentry, book-binding and printing.

There are also gangs of useful painters, bricklayers, farm-hands and gardeners. On the female side, shops have been built which daily house 384 patients, all of whom are doing or learning to do some useful work. There are now 68 sewing-machines worked by patients, and five stocking machines on which new stockings are made or old stockings re-footed. Female patients also do upholstery, and make rugs, brushes, paper bags and envelopes, in addition to making all kinds of articles requiring sewing.

The drilling of the patients, both male and female, is in full swing, and it has made a marked improvement in their general deportment.

To give some idea of the extent to which the industries have grown, one might mention that in 1907 the value of goods made and disposed of was £4,138 4s. 7d. In 1910 it rose to £8957 17s. 8d., and during last year to £12,366 19s. 6d., an increase of over £8,000 per annum in five years.

There are now 835 out of 1,064 adult imbeciles undergoing industrial training, a percentage of 78, and practically all the remainder are employed in domestic duties.

So far reference has only been made to the imbeciles in the institution. During the last year 598 unimprovable imbeciles have been transferred from Darenth, and their places have been taken by 350 feeble-minded patients. The majority of these have been more or less trained in the various schools and homes from which they have been collected. The training continued here under careful discipline has caused a rapid improvement in the work done, and also in the general manners of these patients.

The younger children do kindergarten work, while the elder girls work sewing machines, knitting machines and looms, and

at present do all the laundry work for the Institution, and the elder boys learn bricklaying, shoemaking and tailoring, and work on the farm and gardens. The boys are wonderfully keen at drilling, and their band is exceptionally good.

At present, in Darenth there is a wide and clearly marked line drawn between the inhabitants of the pavilions and those of the rest of the institution. They have been admitted here classified as feeble-minded, and as such they were to be kept quite apart from the certified patients.

It would be difficult to find a better illustration of the impossibility of determining an arbitrary line of demarcation between an imbecile and a feeble-minded person. There are at present among the so-called feeble-minded, many patients whose mental state is far below that of many of the certified imbeciles, and one or two might almost be classed with the unimprovables. Dr. Rotherham has had sent to him for admission into homes for the feeble-minded, patients who were deaf and dumb blind cripple idiots.

This surely points to the fact that whoever classified these particular patients had a much lower mental standard against which to compare them than he who classified the better patients as imbeciles.

Thus although there is apparently a line drawn by the definitions as quoted in the Mental Deficiency Bill between an imbecile and a feeble-minded person, yet in actual practice the line may be moved up or down the scale within considerable limits according to the personal opinion of the classifier.

Would it not be a much more practical apportionment, particularly with regard to treatment, to divide the three groups with which we are at present concerned, *viz.*, idiots, imbeciles and feeble-minded, into two groups, one consisting of idiots and unimprovable imbeciles, and the other of improvable imbeciles and feeble-minded persons? These might be called respectively unimprovable and improvable defectives. The differentiation would then be much simpler and more definite, and for the first there would be idiot asylums and for the second industrial colonies. These two types of institutions would have to be under one board of control, so that there might be facilities for easy transfer from the one to the other, enabling trials to be given to an unimprovable to qualify for the higher grade.

Also this board of control should be responsible for other

institutions, which would form the necessary market for the disposal of the goods manufactured in the industrial colonies.

The usual system of trial adopted here is to place the patient, unless he has special ability, in the wood-chopping shop, where he is given the simplest work to do. Here he is watched and if he shows interest in his work he is moved on to a more interesting industry, and it is in this transferring that experience and judgment are required. As a matter of fact, if a patient asks to be tried in any particular shop, he is, if possible, put there because it is found that he will try harder at his chosen work. Subsequently patients, if unsatisfactory in one shop, are freely transferred until they settle down to work that appeals to them.

This part of the work is extremely interesting and encouraging, although one occasionally finds that a patient who has been useless for a considerable time, will, if left in one shop, eventually suddenly take it upon himself to work, and will rapidly become a most useful tradesman.

The interest taken in the work by the patient, and with this, the improvement in the work he does, is encouraged by judicious praise, and by telling him where his work is going and by when the order has to be dispatched. This gives him a feeling of importance, and he usually tries to make his work suitable to that of an important person. Praise encourages a pride in their output, and if one expresses astonishment that a wire-drawn brush has no break in the wire, one will have shown up a few days later a small pile of brushes without a break as a special surprise. So also if faulty goods are returned the disgrace is keenly felt, and much good work is done to atone for it.

Another method adopted here is to place a good worker next a poor one, telling him to show the beginner how the work should be done. This improves the output from both.

Of course the greatest essential to the success in this industrial training is to have an adaptable staff of trainers, and over them a competent, keen and tactful craftsman, who can manage men as well as patients and who takes a pride in his work. Darenth is particularly fortunate in this respect in the person of Mr. Bickmore.

The patients become interested in all games, and these improve their work not only by reason of the healthier bodily condition the games themselves produce, but also because from

the good players, only the good workers are chosen to play outside teams.

The improvements shown in the general mental state of patients treated by industrial training in place of the old vegetation method are manifold. The patients' interest in life as workers is well shown in the way they lift their feet in walking, this intelligent gait taking the place of the body-shuffle the same patients used in years gone by.

The old sullen expression has given way to brightness and the ward quarrels have markedly diminished. On entering a ward now when all the patients are in, the old noisy high-pitched talking, the one against the other, is missed, and one finds the patients healthily tired and quietly playing games and talking, although possibly without much intelligence, yet with a moderation bred of their industrial discipline. Their demeanour in church and at entertainments shows this same sense of decency and restraint, and all who are called upon to officiate or perform before them are invariably struck by their respectful and seemly behaviour.

Yet with all the improvement that it is possible to make in the imbecile or feeble-minded person, the hereditary taint is still there to be transmitted to future generations, probably in an accentuated degree, and, therefore, however efficient a tradesman a mentally defective person may become, it can never be justifiable to recommend the liberation of one of these dangers to the race except under the most exceptional conditions of reasonable supervision.

The life the patients live here is one free from care; they are well fed and clothed, and provision is made for their pleasure and recreation. They work well and enjoy it, and it is a remarkable fact that the only patients who suggest that they would like to be discharged are always the ones whom it is most necessary to keep under control.

In the last few years, only one patient has been discharged otherwise than against the advice of the medical superintendent and that was a case of recovered religious mania. When it was first suggested to this patient that he should go into the outside world he said he would much rather stay here until he had perfected himself in carpentry, as he could not expect to get such skilled instruction outside. He has since been discharged, and is doing well.

This is, of course, an exceptional case, and does not come under the category of feeble-minded and improvable imbeciles, but it does show that the conditions obtaining here are not repugnant even to a sane person.

In conclusion, may I just revert to two points. The first is the unsatisfactory classification into idiots, imbeciles, and feeble-minded, when the second has to be subdivided into two subclasses, the unimprovable and the improvable, for the purposes of treatment, the first subclass to be treated with the idiots and the second subclass with the feeble-minded. The second is with regard to the permanent segregation of the mentally defective. So much is said about the loss of personal liberty entailed, and therefore of happiness.

Anyone who has seen a collection of people belonging to the class from which these patients spring, whether in a factory or elsewhere, will bear me out when I say that there is nowhere a healthier or happier crowd of workers. Certainly they have not their liberty, but after all the amount of liberty that anyone of us has is only a matter of degree, and although they have less than some of us, they have the compensation of having infinitely less worry.

The PRESIDENT said the paper was highly interesting in itself, particularly so in view of the visit paid by members that morning to the wards and workshops of the institution. It was now evident from what Dr. Spensley had said why it was there was such a crowd of healthy, happy workers. He had been much struck by the brightness and cheerfulness of the inmates, and the keynote seemed to be the individualisation, which began on the day the patient entered the institution, and continued throughout, every opportunity being given to develop still further. It had been extremely interesting to hear unfolded the history of the development of the establishment, from the idea which originated many years ago. Members would congratulate everyone concerned on the progress of this great institution.

Dr. SHUTTLEWORTH said that having himself had the opportunity of knowing the early features of the institutions which had been so very lucidly brought before the meeting by the paper of Dr. Spensley, he might be allowed to express his great pleasure, which would be shared by all present, at having heard the brief history of the evolution to the present state of things at Darenth. Dr. Fletcher Beach, who was the first superintendent of the Darenth Schools, came to visit him, in 1874, when he was superintendent of the Royal Albert Asylum and Dr. Beach saw the forms of industrial training in vogue there which were brought more or less into the practice of the institution which was formed at Clapton, in North London, and afterwards removed to Darenth. He, Dr. Shuttleworth, watched the infancy and growth of Darenth after the opening of the nucleus of the present colony. He did not wish to go over the ground which had been already so well traversed, but might perhaps venture to allude to one matter which he did not hear mentioned in the paper. This was an experiment which was tried by the Board, of separating the more improvable cases, and taking them away from Darenth, which contained many hopeless cases, to a small institution at Ealing, called Rochester House, between the years 1900 and 1904. They formed a community of 120, selected as fit for the purpose of industrial training rather than for anything else. He was appointed "medical expert" to that experimental home at Ealing, and he

saw how much could be done with those cases even with the imperfect means of a provisional establishment. There was an admirable matron, who had had experience at the Royal Albert Asylum, and she did what she could in setting trades going. There were tailors, shoemakers, wood-workers, basket makers, and the girls were employed in laundry and needle-work. They had a sewing-machine at work, and the girls were instructed as to its use. It was his invidious duty to make predatory excursions to Darenth, and select those cases for Rochester House which he regarded as most improvable. He feared that his visits were annoying sometimes, because he had to transfer such boys and girls as gave promise to the Ealing establishment for a time. He would not dilate on that further, but would like to say, with regard to the classification which had been put before the meeting, that he agreed with Dr. Spensley that there was very little difference between the high-grade imbecile and many designated feeble-minded. He thought that point had arisen rather as a practical result of the Defective Children's Education Act; and it was very much a matter of expediency to call a certain number of children feeble-minded and send them to a day school and not to an institution, because their parents would not have them leave home. Therefore the name "feeble-minded" had been affixed to them, though the difference was only one of degree, and perhaps not always that. Some of the children in special schools were not indeed of as high a mental grade as some other children who had had the good fortune to be certified as imbecile and sent to an institution.

Dr. POWELL said he would like to hear from Dr. Spensley whether there was any age-limit at which patients were sent away. He had noticed scarcely any adults at all. Also, had the authorities any inducements to offer the best of the patients? Was there a system of rewards or luxuries? He felt he could not agree with Dr. Spensley's classification of improvable and unimprovable. His experience of years among feeble-minded and imbeciles was that the class of unimprovables was very small indeed. Therefore, to put the low-grade imbeciles who were improvable into the same class as the feeble-minded would not be practicable.

Dr. HUGHES (School Medical Officer, Stoke-on-Trent) said he would like, as a school medical officer of a large county borough, whose Committee was very much interested in this question of the educational treatment of the feeble-minded, to ask one question. A sub-committee had been appointed, and he had been able to procure a copy of the excellent report issued by the Medical Inspection Sub-committee of this Association for the use of the members. It seemed to him that there were two distinct systems advocated—the Manheim system, and the colony system; and it did not seem clear what relationship one should bear to the other. Was one an alternative system to the other, or should they run concurrently?

Dr. LANGDON DOWN remarked that Dr. Spensley had stated he had some feeble-minded cases, and some imbecile; and he, the speaker, would like to know whether the feeble-minded were uncertified, or whether all the patients were certified as imbecile. It was clear that the practice of the medical profession in relation to this matter had been of the vaguest, as Dr. Spensley had already pointed out. Define as carefully as one might, the personal mental attitude of the medical examiner would intrude itself into the decision, and make havoc of the book definitions. It was unfortunate that in the past there had not been a greater degree of unanimity, because he thought much of the difficulty which had arisen had been due to the fact that medical men had been so unwilling to recognise that the institutions did already largely provide what was wanted for these people, and that the further need was the provision of money. He had been much interested in this visit to-day, and what struck him as the point to bear in mind in reference to future action in the matter was, the immense value of having great numbers together in the building. The danger was that philanthropic people who were showing activity in these matters would act on *à priori* considerations, and have small detached places, accommodating not more than fifteen or thirty people. This, however, would preclude classification according to idiosyncrasy, which was so very valuable in an institution such as this. Moreover, it would be impossible economically to provide that skilled training in various industries which made the Darenth Colony such a success. Those things must be remembered if the movement was to have full fruit during its imminent application all over the country. One was not suffi-

ciently alive to the fact—as he believed it to be—that the question of the feeble-minded was a problem which was now coming into prominence owing to the relative advance of the great bulk of the population; and that it was a defect of breeding now becoming apparent, not because it did not exist before, but because conditions of civilisation were moving on. He had been much interested in the discussion and the visit generally.

Dr. CORNER said he believed he could answer the question which had been asked concerning the Manheim system. This was the sorting-out system preparatory to the colony system. Children were associated in the various grades, classes or schools, and they would be put to the most appropriate institutions to which their capacity suited them. Those who were simply temporarily backward went to the normal schools. In future the special schools would undertake that function, separating those who were merely backward from those who were really feeble-minded, and the latter in turn from the imbecile. He wished to support the remark which Dr. Powell made on the question of classification. It had been stated that there was no strict demarcation between the imbecile and the feeble-minded, and that they should be called imbecile. That seemed to him to be an absurd argument, because there was no real line of demarcation between the feeble-minded and the normal: the one merged gradually into the other; and if it were argued that all feeble-minded persons should be looked upon as imbecile, it was but a step to saying ordinary persons were feeble-minded. Many people did not realise how high grade atypical or feeble-minded persons might be, and it was those whom it was hoped to deal with by this Bill. As one progressed higher and higher in the class of case, one met with greater intellectuality. But this latter in turn seemed to make for instability, for a tendency to mental disorder: and mental disorder in children always showed itself in disorders of conduct. Therefore, in high-grade classes one found unbalanced people and social offenders, and those the projected legislation hoped to deal with. He understood that there were not many social offenders in Darenth Colony, but those were the people who, in the future, would be looked upon as the feeble-minded, and it was, in his view, very questionable whether they should be associated with the lower-grade case. They were capable of doing very much. The statement had been made, "once defective, always defective," that one could not hope to make them anything like normal, and therefore they ought not to be discharged. Many cases needed special training; he did not mind by what name they were known, though in America the name "atypicals" was applied to them. He maintained that these "atypicals" could be sufficiently trained to enable them to earn their living outside; and judging by what they produced, no one who had not been acquainted with their past history would conclude that they were in any way deficient. Cases of this class needed to be specially dealt with, and it was a great mistake to try and rope all cases into one class and apply to them the term "imbecile."

Dr. FLETCHER BEACH said the paper was of great interest to him, as he was the first superintendent of the institution. The paper reminded him of the difficulties which had to be overcome in the earlier days. He used to say to the Committee that it was of no use to spend much money on training these people, and mixing up the adult and juvenile cases together. To meet that objection the pavilions were erected, so that one class could be put there. But in those days one had no power to deal with unimprovable cases, hence the pavilions were filled with helpless unimprovable cases. Out of the thousand cases under his care, only 300 could be employed at shop work or in school. It was a pleasure to him to see that what was urged in those days had been so well carried out. It was necessary to bear one point particularly in mind. It would not be advisable, he thought, when the Bill was passed, to have small colonies, at least until a proper classification had been made. They should be sorted out, and applied to the various workshops which they were fitted to occupy. To attempt this in series of small numbers would mean a great and unnecessary expense. He hoped that such establishments would be constructed and equipped for not less than 500 patients.

Dr. SPENSLEY, in reply, said it had been mentioned in the discussion that if a patient, in private practice, were called an imbecile, it was looked upon as a mark of degradation. With that idea in his mind, he suggested in the paper that such should be termed *mentally defective* either *improvable* or *unimprovable* and that they should be so classified. It would cause less ill-feeling than classifying them as



idiots, imbeciles or feeble-minded. With regard to the age-limits, cases were admitted from three years, and discharged, as a rule, when they had become on longer useful industrially. The inducements offered in the Colony to do good work consisted of one or two ounces of tobacco a week; that allowance was stopped if the work was not such as it should be, or if the workers misbehaved themselves, and an additional punishment was to keep them from working in the shops with their fellows. While such a misdemeanant was detained in the wards, he was regarded by his co-workers as in disgrace. They were kept away from work for some time after, until they showed eagerness to go back to work. With regard to the subdivisions, the real unimprovables must be low-class imbeciles. There were few imbeciles who were really unimprovable; but many idiots were sent in as imbeciles, and these were regarded as unimprovable imbeciles. The feeble-minded in this Colony were uncertified, and legally could not be so while classified as feeble-minded. He maintained that the question of the improbability or otherwise of the patients formed a clearer line of demarcation than any line which could be drawn between the normal and the feeble-minded. The former line could be a distinct one, whereas he knew of no such well-defined border between the feeble minded and the normal.

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*The Mentally Defective Criminal.* By J. P. STURROCK, M.A., M.D., Medical Superintendent, Criminal Lunatic Asylum, Perth.<sup>1</sup>

SOME forty years ago, Dr. Bruce Thomson, the first resident surgeon to this prison, contributed to the medical journals a series of observations upon over 5,000 prisoners. He dealt chiefly with the more obvious physical defects which, to his thinking, supported the theory of the existence of the instinctive criminal, and though his observations were somewhat generalised, he was rightly regarded as a pioneer in the science of criminal anthropology. He also drew attention to the prevalence of weak-mindedness among juvenile prisoners, and stated that as much as 12 *per cent.* of all prisoners required special observation soon after admission because of mental defect. There is little doubt that in his time the old method that consigned all forms of disordered conduct to prison still persisted, and many changes have since taken place that would tend to diminish his percentage. Prison discipline is still, in spite of its mildness, largely credited with bringing into prominence many symptoms that are put down to mental defect. It would be reasonable to look for a considerable reduction in the numbers of weak-minded persons in prisons during a period when prison administration can conscientiously take to its credit the fruits of a progressive spirit that is not, however, readily granted to it by many whose reforming enthusiasm takes no

thought of the spade-work that has preceded their own awakening. The psychological point of view is prominent in the most recent methods of dealing with the criminal. Preventive detention for the habitual, probation for the first offender, Borstal training for the juvenile delinquent, etc., all recognise the mental aspect of the offender as fully as any system that can be evolved by the mental pathologist. That the mental abnormality of the habitual major offender is a more complex affair in its origin and treatment than is insanity will, I am sure, be amply verified by the future experience of the preventive detention institutions, where grave disorder can only result if the treatment views too much in this light of irresponsibility the vicious tendencies of the inmates. From whatever point of view we look upon the habitual and professional criminal, it is certain that many of this type may be safely left to the law which is rightly concerned with the protection of the public, and continually progresses in an endeavour to fit the punishment to the individual.

It is doubtful if there is any form of crime that is purely a symptom of lunacy or of simple mental defect. The infrequency of ordinary typical forms of insanity in prisons but serves to emphasise the destructive character of the criminal manifestations associated with unsoundness of mind. Crime rarely takes a definite persistent form unless that is a remunerative one, and much confusion results from attempts to correlate the varied forms which the habitual's offences take with the vicious manifestations or the defect he exhibits under detention. We do not see the same conduct in the weak-minded pauper lunatics who have no prison association. In the defective criminal, in addition to a substratum of disposition, moral insanity or wickedness as you please, which sets a definite stamp upon his conduct and is the controlling factor that determines his treatment, we have also to deal with all the vicious tendencies acquired from his environment, many of them having no causal relationship to his mental defect, but simply intensified because of it. Bruce Thomson, looking upon the puerperal woman accused of child-murder from the criminal standpoint, sought for some moral defect to account for her offence, whereas she is now invariably considered to be insane, though we cannot but look for some underlying disposition to account for the particular trend of her insanity. The woman who, in an attack of melancholia, drowns her chil-

dren, having failed in an attempt to drown herself at the same time, rarely exhibits any remorse when she recovers, and in her sane condition reveals in most cases an ill-balanced temperament which explains how under the influence of melancholia, often complicated by alcoholism, the almost invariably contributory cause of domestic friction comes into play, and she seeks to rid her husband of herself and her children. It is interesting to observe how the morally defective or criminal mind invariably exhibits this peculiar variety of melancholia, the sulky, petulant, resistive type that projects its disordered conduct to affect others. We have here two men who in different ways nearly succeeded in killing their wives under the influence of ideas of infidelity and were found to be of unsound mind. Both had been absent from home for a long period, one had wilfully neglected his wife before coming home to live upon her earnings, and had become irritable, suspicious and despondent through sheer indolence, undoubtedly prior to any delusional state, and both not only admitted that they had been unfaithful, but showed evident signs of venereal disease which they confessed to having acquired while away from home.

It may be defective moral sense or something else, but at any rate some difference, which cannot be explained by a purely delusional insane state, exists between the man who insanely believes his wife to be unfaithful and shoots her, and the similarly deluded inmate of an asylum who has probably before certification for years had the same opportunity, or the sane person who has full proof of his wife's infidelity and only brings her into the Divorce Court. I doubt if the acutely alcoholic, whose impulse invariably takes the form of wife-beating, will be found to be much attached to her when he is sober, or, as some authorities would have us believe—at least we can only so interpret their explanation—is continually in a potential state of wife-beating from which his sober self-control deters him.

Criminal acts, even where there is a causal, or simply an associated, mental defect, are more complex in origin than is generally conceded, and it is this that must be kept in mind in any attempt to correlate them with mental defect, and which is of the greatest importance when we deal with their treatment.

Apart from the question as to whether all crime should be treated entirely from a mental standpoint, it is agreed that there are many persons, particularly among the petty delin-

quents, whose mental defect does contribute markedly to their lapse into habitual delinquency and their graduation as major offenders. Many offences, at least, are so associated with mental insufficiency that the delinquents should not be treated in a prison. The percentage of defectives in prison has been very variously estimated. Dr. Quinton, late of Holloway Prison, a man of great experience, makes it as low as 4 *per cent.* The modest estimates invariably come from those whose duties bring them daily into contact with prisoners. There is no difficulty in correlating simple weak-mindedness with the minor crimes of omission, such as vagrancy, trespassing, loitering, indecent exposure, etc. A considerable percentage of these cases will be found to be weak-minded. After a sentence they are environmentally worse off than before, and readily drift into the ranks of the habitual. Many become the tools of expert criminals, and so find their way back to prison for major offences, which they readily imitate when again at large. Such, for example, was an evidently congenital imbecile recently sent to the lunatic department during His Majesty's pleasure. He lived with his mother, who was separated from her husband, and drank heavily. He earned a little by selling papers and matches, but soon fell into the hands of thieves. He served a few short sentences, till he was found in possession of a bicycle which had been stolen by others and given to him to keep when they feared detection. The parish authorities had previously refused to provide for him, recognising his previous record of convictions more than his defect, which was apparently not certifiable, and he was sent here by the Court to prevent further relapse. He was harmless and inoffensive, most obviously not a dangerous lunatic, so that he was soon transferred to an ordinary asylum, where, if he shows any vicious propensities, these are probably due to his not having been sent there at first. Any defective with such an environment can hardly fail to drift into prison. He cannot acquire a means of living, joins the ranks of loafers that pass through lodging-houses, poorhouses, and prisons, and as the latter is the only establishment that has to keep a record of him, he soon acquires the brand of the habitual and incurs long sentences.

Weak-mindedness makes itself apparent in many who at an adult age acquire a place in the world that they cannot keep. Many women who are sent to prison for persistent cruelty to

children are guilty of the much less harsh offence of neglect, and observation often shows that they are hardly fit to look after themselves, and cannot properly be held responsible for their ignorance and inability to cope with an increasing burden of children. I do not, however, agree that in all cases of neglect of children there is mental defect; in many cases the trouble is due to the woman becoming more fond of drink than of attending to the needs of her children, and often apparent mental defect has been produced by alcohol. Senile demented, chiefly women, readily drift into the vagrant classes, and their aversion to the poor-house, coupled with their inability to subsist without begging, brings them into prison. Some of these have come originally from asylums after attacks of insanity, and from supervening secondary dementia, lack of friends and proper after-care, have found themselves unable to live without begging or stealing.

Epilepsy, too, furnishes its quota of habituals. In some cases, the actual manifestations of the disease have been viewed in the light of disorderly conduct. In most cases, it is the accompanying feeble-mindedness that produces delinquency, but even the disability resulting from the purely physical effects of the disease tends to loss of employment and subsequent delinquency. The condition of all these cases is simply due to the absence of any system of compulsory detention, which need not be in an asylum, but should not be in a prison.

Among the illiterate prisoners dealt with in batches, and passed from one authority to another in virtue of anti-social conduct and previous convictions, cases of unrecognised insanity occur. Peculiar obsessions that result in crime, sexual offences, motiveless thefts, etc., are often found to be based upon mental defect. The difficulty of allotting proper treatment for the more revolting types of sexual offences lies in the fact that in otherwise apparently normal persons the defect only becomes prominent under the influence of alcohol.

The combination of alcohol and mental defect in producing crime is a complicated matter. The condition is by some put down widely to a loss of self-control, a diminution in will-power, terms which are at present on everyone's lips and have not been satisfactorily defined by anyone. The impulsive acts of acute alcoholism and the degraded habits of the inebriate are alike put down to this condition. The only alternatives to methods of dealing with serious crime occurring only but always under

the influence of drink, are to allow the offender to go free as being irresponsible at the time—a proceeding which will have no tendency to cure him—or to detain him indefinitely. The records of the reformatory show miserable results from attempts to reform the uncertifiable but vicious drunkard. If it be true that crimes of violence due solely to alcoholism and habitual inebriety are symptoms of mental defect, there is good reason for detaining the offenders, and making the best of their vicious and discontented conduct under enforced detention. But all vicious alcoholics and all habitual inebriates are not weak-minded, and in my opinion there never was a more pernicious definition of weak-mindedness formulated than that based upon the inability of a man's brain to carry alcohol. The statistics of English inebriate reformatories show a larger percentage of defectives than is furnished by our own reformatory, and I do not think our observations are unduly unenlightened. One reason for the discrepancy has, it is stated, been offered by a magistrate in a large industrial centre, who committed most of the inmates to an English reformatory, and was so convinced of the futility of reformatory treatment of the inebriate that he only sent those who were defective. The failures, it may be admitted, include all the defectives. The better results of recent years are due to the admission of greater numbers of respectable women, whose neglect of their children, etc., are obviously secondary to an environmental lapse into inebriety, often originating in physical infirmity and mental worry, and it is unfortunate that so many of these have to go through a prison treatment before qualifying for the reformatory. Many of the earlier incorrigibles who were subjected to treatment in the reformatory are now allowed by the authorities to go to prison, and their good behaviour there is remarkable when compared with that which they exhibited under the better conditions of the reformatory, with the treatment of a long, and to them unjust, detention. No class of habitual offender so well exemplifies the difficulties of treatment under permanent detention as the inebriate. He will assert, of course, that he has been already punished for each of his offences, and that the long detention for his last one is simply punishing him all over again for his previous convictions. If there is a likelihood of his being liberated according to his good behaviour he may do well, but if, after

a trial, he fails to keep sober and is returned for permanent detention, he will soon give any vicious propensities full vent. Indeterminate, not permanent, detention will alone prevent his becoming hopelessly debased. He has no thought of the social order which is being protected, will tell you of many individuals who drink far more than he does without their liberty being interfered with, and looks upon the detention of a sane and capable person, as he believes himself to be, and is in most cases while detained, as a piece of gross injustice. He may be placed in a labour colony, but unless he has definite hopes of freedom it will need considerable inducement to make him labour. That in a large number of cases self-control is not so much defective as in abeyance, is proved by the fact that when sent out on license, before the expiry of their reformatory sentence, they often keep from drink until their sentence has expired and they cannot be returned to the reformatory. The prospects of success for the indeterminate sentence are also based upon the indeterminate guardianship with hopes of liberty.

The most interesting conditions, where, too, it is most difficult to estimate the extent of mental defect, are those which develop in the confirmed criminal and in the juvenile offender with an ingrained or acquired vicious disposition. What at the adolescent stage appears to be an inherent disposition may actually be an acquired one, and a vicious temperament that sets a youth out upon the road of delinquency may simply be a perversion and aggravation of improperly corrected habits of childhood. The origin of the "spoilt child" is not always the allowance made for defect. The "explosive" prisoner is often the youngest, sometimes the only, boy of an indulgent mother, and we get such histories as that of a boy, who, when refused his own way, would take the tablecloth and pull all the breakfast dishes on to the floor without reproof.

In recent years, the severity of prison discipline has been relaxed to a remarkable degree, and, curiously enough, coincidentally with this, the lunatic department has been flooded with a motley mass of degenerates, whose presence there is chiefly due to their inability or aversion to comply with this discipline. In the case of some convicts, it is possible that they exhibit symptoms of mental defect that were lost sight of under severer measures, but it is apparent in many others that vicious tendencies that cannot be tolerated amid the freer associations

and privileges accorded to them have been let loose by reason of that relaxation, and, if allowed scope, so obtrude themselves, when compared with the behaviour of the less vicious, as to bring them under mental observation. Ideas of persecution, chiefly directed against officials, are easily developed by the criminal mind in a convict prison, and disappear entirely upon expiry of sentence. In a few cases, these become extended and fixed under long sentences. In prisoners of weak mind they are often borrowed and used in a manner that contributes a simulated insanity without any direct intention of the complex process of malingering. The combination resists penal treatment, and when the convict is removed to the lunatic department the delusional condition disappears, or appears only on suitable occasions, while the mental defect aids only in aggravating the manifestations of jealousy, cunning, and ill-balanced temper. Such cases when they come here and find they have the freedom of a hospital become 50 *per cent.* worse before they show any signs of improvement. The same difficulties apply to the "explosive" prisoner, whose chief symptom is an aversion to regulations, and who, when at liberty, is invariably found in the hooligan ranks. He probably refuses to submit to some rule, and in his temper attacks a warder or carries out a protest in the form of destruction of property. Any punishment he receives causes him little inconvenience and usually acts as a further irritant. Most of these cases, it must be remembered, have little to induce them to get their sentences over quickly; they know the sentence is a fixed one, and only look forward to the freedom, which, to the hooligan, though it is his very life, has no aim or object. Persistent behaviour of this kind is not curable in prison at present, and the course of least resistance is to recognise a defect in the domain of self-control and remove him to the lunatic department as a defective. If he has been refusing food for some days as a protest because any change in his diet he cared to ask for was not granted forthwith, he takes a hearty meal the moment he enters the department and finds the abundant fare at his command there. If he has been violently excited or out of temper, the novelty and freedom of the surroundings, the tobacco, the privileges, etc., all combine to make him at once the sanest and most docile of inmates. Then the underlying elements begin to appear, jealousy usually first of all, and he begins to regulate



his behaviour according to the maximum privileges he can extract from the management, first by cunning, and later by a repetition of his conduct in prison and annoying disturbances. With the wider opportunities of an asylum, with full association amongst companions of his own temperament, who instruct him in the methods they have found most successful in their own case, and with a full knowledge of the possibilities to be gained by threats, his demands become more numerous and his protests more annoying. There is nothing that some of these degenerates will not attempt to effect if they lay their heads together. The staff are continually under the necessity of replying to accusations of the most perverted type. They have to treat these individuals, not only in the tactful and calm way that I can vouch for, but without restraint, force, or loss of temper, often at the risk of injury in return for their inability to meet every whim of an irritable disposition, but also in the full knowledge that the general trend of public opinion is that if a person is said to be of unsound mind he can do no wrong. One explosive prisoner, whom I consider to be sane now, though it is a difficult matter to face his liberation in view of his record of thefts and assaults, accused two warders of assaulting him during the night and giving him a black eye, this because he was irritable at being reprovved for disturbing a ward by an outburst of temper. No inmate near him heard any disturbance such as would undoubtedly have occurred if anything of the kind had happened; he would most certainly have roused the whole house. There was no mark, so that later, to substantiate his statement, he, in the presence of another inmate, hit himself, making a trifling mark, and forming a combination with other companions regarding this till, as invariably happens, they fell out and each told upon the other, the facts being amply verified. Similar incidents of perversion are of almost daily occurrence.

It is generally anticipated that the detention of the habitual delinquent will result in a saving of much expenditure incurred in his repeated committals. I doubt if this will be found to work out satisfactorily. The machinery for administering the law to the responsible criminal will not very materially diminish for some time, and asylum treatment for the defective will not be provided without a large expenditure. Indeed, it will be as unsuccessful as present methods if this is not recognised. The minor forms of petty delinquency associated with mental defect

may be easily dismissed. In those cases where there are no vicious tendencies to be combated, no appointed authority can have objections to looking after them. Even if detention in a poorhouse were made compulsory for the vagrant and weak-minded delinquent, or a colony were provided, in either plan furnishing them with full compensation for their detention and all the comforts necessary for their condition, something definite would be accomplished. The difficulty is that at present the only methods of interfering with the liberty of the subject are a sentence in prison or a medical certificate of insanity. The solution of this may be safely left to the framers of a suitable bill for the treatment of the mentally defective. At present the position is absurd. Defective prisoners are frequently handed over on expiry of sentence to the parish authorities, and their medical officer, rightly adhering to the principle of certifying only upon facts indicating insanity observed by himself, may be unable to commit these cases to an asylum. I recently had a woman who was in prison for neglecting her children, and after treatment in the lunatic department was sent on expiry of sentence to the inspector of poor with a definite history of melancholia and weak-mindedness, and who returned in a few weeks to prison for sixty days, only to be again handed over as before and again set at liberty. Another difficulty is that, apart from the question as to whether the defect of the incorrigible and explosive prisoner constitutes insanity, there is an evident aversion on the part of asylum superintendents to receiving him, and for this there is something to be said. The only alternative is a large asylum for this class, and its management will be no sinecure. Meantime there is an increasing tendency to fix this type permanently by sending them to the lunatic department during His Majesty's pleasure, so that we are already providing, in hospital form, preventive detention for the defective delinquent. I could furnish countless illustrations of the fact that such associated treatment necessitates very special consideration, and buildings properly adapted for this purpose. The ordinary defective of non-criminal tendencies has in this country been well provided for already, and what the promoters of a mental deficiency bill will have particularly to provide for is the criminal defective, and it is well that the experiences of those who are already coping with this class should be known.

Much discussion has taken place as to whether mental

experts are to be allocated to the Courts to examine all prisoners, or whether the mental investigation should be carried out in special annexes of prisons. With regard to the former, any such procedure has up till now resulted simply in mitigation of sentence, and this is not quite what is wanted. If legislation provides a State-conducted permanent detention for the habitual, there will, I am sure, be no need for anyone to search for him. A wide rendering will be given to the term "mental defect." It is only human nature to wish to pass our trials on to others, and there is, as everyone knows who has had to deal with him, no trial quite like the troublesome prisoner. Special annexes of prisons have been suggested as proper places in which to detain the most dangerous and vicious types of criminal defectives. The suggestion is only valuable in that it recognises the difficulties of treating certain defectives as completely irresponsible. Special annexes might be of value in allowing reasonable liberty to troublesome prisoners without upsetting the general discipline of the prison. Many of these behave well for long periods when at liberty, and this would obviate the necessity of sending to the State asylum many a prisoner who is not insane and only doubtfully defective, whose crime has no relation to any defect if it exists, and who is only really troublesome under the somewhat non-individualised *régime* of prison. The suggestion of a "half-way house" for the permanent detention of the insane criminal is simply a matter of treatment and it should not be associated with a prison. Such a proposition recognises, what is so evident here, that in many cases there is a doubt if the mental defect of certain prisoners is anything but an artificial condition produced by uncongenial restrictions and a vicious temperament, and that when given asylum treatment only they become unfitted for ever being discharged; it also recognises the vicious tendencies that are the prominent symptoms in these cases, and necessitate special structural provision for dealing with them. If, however, we have to deal with undoubted defect, we cannot deprive the individual of his liberty on that score without providing, under whatever name you please, all the amenities of an ordinary asylum; these include order and discipline in the best sense.

All our difficulties in dealing with the vicious and destructive inmate begin in the fact that, whatever we may do to make his lot comfortable we cannot give him his liberty, and he

wreaks his vengeance upon his guardians, having no thought or power to do it upon society, who are his real oppressors. We cannot but have sympathy with him. A real lunatic does not think of much beyond his confused fancies or his mythical persecutors; the prisoner looks forward to the end of his sentence, but the defective criminal whose delinquency is, so to speak, potential, is, if you take hope from him, in a miserable plight indeed. Give him everything you can to compensate him for his liberty, and his demands make him in many cases, as I have pointed out, a petty tyrant whose acquired habits lead him to try his guardians in a way that few have any conception of. Liberation under guardianship will be possible in some cases after prolonged treatment, but in most cases the very accession of liberty will not tend to make guardianship commend itself to the delinquent.

Proper treatment under conditions of permanent detention will only be secured by providing such structural and administrative features, such extensive provision for separating dispositions and temperaments, such specially selected staff as will ensure the safety of the public, the moral training of the inmates in habits of order and work which they take every means of shirking, and every consideration for their mental defect, while the staff will be protected from any transference of prison traditions to the State asylum, and will not be called upon to unduly bear the burden of philanthropic enthusiasm or of their charges' delinquency.

When the mental expert has turned his attention to prevention, and methods for obviating by means of segregation the acquisition of criminal habits by the imbecile, and especially the higher grade defectives, when the mental condition of the adolescent in the ordinary juvenile reformatories has been gone into, when the mass of finished delinquents has been appropriately housed, it will probably be found that the vicious tendencies of the defective criminal are as much environmental as inherent. Not only will many of the more serious and revolting forms of crime be diminished, but in time, I doubt not, the difficulties which we have to contend with, and which we shall continue to contend with for a long time—trying and nerve-wrecking as they are—will be to our successors as traditional as the prison orgies of a century ago are to ourselves.

(<sup>1</sup>) A paper read at the Scottish Divisional Meeting of the Association, March, 1913.

*Notes on 100 Mentally Defective Prisoners at Stafford.*

By M. HAMBLIN SMITH, Medical Officer, H.M. Prison, Stafford.

THE 100 cases were reported from Stafford Prison between the dates September 26th, 1911, and August 20th, 1912, *i.e.*, a period of about eleven months. During this same period, there were received into Stafford prison 2807 males and 611 females (excluding debtors, and penal servitude prisoners who were sent to Stafford from other prisons). Some allowance would have to be made in these figures for the same individual having been received more than once during the period under review. For during the same period one female feeble-minded prisoner was convicted four times, one male and one female three times, four males and five females twice; and taking these figures we get:

Male feeble-minded 57 *plus* 6 re-convictions = 63 among 2,807 total receptions, or 2·2 *per cent.*

Female feeble-minded 43 *plus* 10 re-convictions = 53 among 611 total receptions, or 8·6 *per cent.*

From this it would appear that the proportion of feeble-minded women to the number of receptions is much larger than that of men. It is possible that I may have drawn the net a little closer for women than for men, and the numbers under consideration are small, but I am under the impression that the proportion of feeble-minded to receptions would always be found decidedly greater in women than in men.

The daily average of feeble-minded in the prison was 12·5 among a population of 400.

The cases were divided into two classes:

(1) Fit for ordinary penal discipline; and (2) unfit for ordinary penal discipline.

In classifying each case I have proposed this rough test to myself—"If this prisoner commits an offence against prison discipline, can he or she be properly passed as fit for punishment?"

It is sometimes a matter of uncertainty which class a prisoner should be placed in. When such doubt exists I have always put the prisoner in the "unfit" category.

The numbers of each class are:

	Fit for discipline.	Percentage.	Unfit for discipline.	Percentage.
Males	28	49	29	51
Females	29	67	14	33

The usual prison routine was, of course, suitably modified for each prisoner in the "unfit" class.

*Classification of the cases.*—The method is that adopted by the Prison Commissioners in their annual reports, and gives the following results:

	Males.	Females.	Total.
(1a) Congenital deficiency with epilepsy . . . . .	2 (3·5%)	2 (4·6%)	4
(1b) Congenital deficiency without epilepsy . . . . .	33 (58%)	19 (44%)	52
(2) Imperfectly developed stage of insanity . . . . .	3 (5%)	1 (2·3%)	4
(3) Mental debility after attack of insanity . . . . .	—	3 (7%)	3
(4) Senility . . . . .	14 (24%)	3 (7%)	17
(5) Alcoholic . . . . .	5 (8·7%)	15 (35%)	20

The small amount of epilepsy is striking. There is a striking disproportion between the alcoholic cases in the men and the women. Inquiry into their habits showed that 28 (49 *per cent.*) of the men and 30 (70 *per cent.*) of the women were undoubtedly chronic alcoholics. But in a number of these cases among the men it was clear that alcoholism was the *result* of the mental defect. Among the women the mental defect in fifteen cases appeared directly *due* to chronic alcoholism.

*Offences for which the Prisoners were Committed.*

	Males.	Females.	Total.
Vagrancy, begging, etc. . . . .	22 (40%)	6 (14%)	28
Drunkenness, etc. . . . .	14 (24·5%)	20 (46%)	34
House-breaking, larceny, etc. . . . .	10 (17%)	3 (7%)	13
Prostitution . . . . .	—	8 (18%)	8
Neglect of children . . . . .	1	5 (11%)	6
Indecent assault. . . . .	5 (8%)	—	5
Common assault . . . . .	2	—	2
Arson . . . . .	1	—	1
Perjury . . . . .	1	—	1
Sacrilege . . . . .	1	—	1
Attempted suicide . . . . .	—	1	1

*Previous convictions.*—The united previous convictions of the 100 prisoners recorded at this prison amount to 1,104, or an average of 11 per prisoner. But this number is certainly below the truth. For a number of the prisoners were vagrants, and have served sentences in many other prisons. So far as the convictions known here are concerned, they may be put as follows :

	Males	Females	Total.
Not known to have been convicted before . . .	13 (22%)	6 (14%)	19
With less than 10 previous convictions . . .	25 (44%)	24 (56%)	49
With 10 and less than 20 previous convictions . . .	8 (14%)	3 (7%)	11
With 20 and less than 30 previous convictions . . .	7 (12%)	4 (9%)	11
With over 30 previous convictions . . .	4 (7%)	6 (14%)	10

One man had 100 previous convictions for drunkenness, and two women 84 and 68 respectively for similar offences.

With regard to the cases not known to have been convicted previously, their ages were : *Males*—larceny, 17, 19, 21; begging, vagrancy, etc., 28, 50, 54, 62, 67; drunk, 31; neglect of children, 53; common assault, 40, 59; indecent assault, 70. *Females*—neglect of children, 34; prostitution, 30, 35; vagrancy, etc., 27, 25; drunk, 57.

#### *Ages of Prisoners.*

	Males	Females	Total.
Under 21 years . . . . .	7 (12%)	1	8
21 years and under 31 years	14 (24%)	15 (34%)	29
31 " " " 41 " . . .	12 (21%)	6 (14%)	18
41 " " " 51 " . . .	5 (8%)	10 (23%)	15
51 " " " 61 " . . .	10 (17%)	8 (18%)	18
61 " " " 71 " . . .	8 (14%)	3	11
Over 71 years . . . . .	1	—	1

The ages depend, of course, mainly on the prisoner's own statements, and are probably in many cases erroneous. The oldest man was 90, the oldest woman 70.

*Occupation.*—The occupations given by the men on reception,

and those of such women as gave any occupation may be tabulated as follows :

Males.			Females.		
Labourer . . .	21		Servant . . .	10	
Hawker . . .	7		Charing . . .	7	
Farm labourer . . .	6		Pot bank work . . .	5	
Coal-mine work . . .	6		Dressmaker . . .	4	
Ironworker . . .	4		House-work . . .	3	
Groom . . .	3		Field-work . . .	1	
Blacksmith . . .	3		Ironworker . . .	1	
Potter . . .	2		Cotton Factory . . .	1	
Rivetter in shipyard	1		Concert singer . . .	1	
Greengrocer . . .	1				—
Sawyer . . .	1				33
Shoemaker . . .	1				
Tailor . . .	1				
	—				
	57				

The "labourers" and "farm labourers" were mostly vagrants ; many had done no work for years, more than one said he had never done any work. The sawyer and one blacksmith had been respectable workmen, but had been overtaken by senile decay. Most of the "potters" "ironworkers," "colliers" and "grooms" were loafers who did an occasional light job. The "shoemaker" and "tailor" had no notion of their respective "trades."

The "rivetter" had never been inside a ship-yard. Twenty-eight of the men had no fixed home, but drifted about from one casual ward to the other, varying this by sleeping out and by short sentences of imprisonment.

The "concert-singer" had been a respectable woman, but had fallen into alcoholic habits. The "servant" were girls and women who took places as general servants, and usually supplemented their wages by prostitution.

For the purposes of the next two headings I have divided the county of Stafford into three parts.

(1) The "Potteries" district, (2) the "Black Country" towns, and (3) the remainder of the county, which is partly agricultural and partly mining districts. The respective popu-



lation of these districts I estimate at (1) Potteries, 250,000, (2) Black Country, 350,000 ; (3) rest of county, 679,000.

Place of birth.	Males.	Females.	Total.
Potteries . . . .	15 (26%)	15 (35%)	30
Black country . . . .	15 (26%)	11 (25%)	26
Rest of county . . . .	8 (14%)	5 (11%)	13
Born outside the county	18 (31%)	12 (28%)	30
Birthplace unknown . .	1	—	1

Place of conviction.	Males.	Females.	Total.
Potteries . . . .	21 (38%)	19 (44%)	40
Black country . . . .	18 (31%)	13 (30%)	31
Rest of county . . . .	13 (23%)	9 (21%)	22
Cheshire and Shropshire courts . . . .	5	2	7

In both the above tables the preponderance of the Potteries and Black Country will be noted. But it must be remembered that a very large proportion of the Stafford prisoners in general come from those two districts.

*Condition as to Marriage (Prisoners own Statements).*

	Males.	Females.	Total.
Married . . . .	4 (7%)	17 (40%)	21
Single . . . .	48 (84%)	15 (34%)	63
Widowed . . . .	5 (8%)	7 (16%)	12
Married, but living apart from her husband . .	—	2	2
Single, but living permanently with one man . .	—	2	2

(One man was "not certain whether he was married or not." I have counted him among the bachelors.)

It would appear that the feeble-minded woman is decidedly more likely to marry than the feeble-minded man. Probably the man finds it sufficiently difficult to support himself. He is also very often of the vagrant class. The preponderance of the married woman may perhaps also be explained to some extent by "forced marriages."

*Degree of education.*—The results of the examination on reception were taken. The following are the figures.

	Males.	Females.	Total.
Quite illiterate . . .	12 (21%)	14 (32%)	26
Can read but not write .	4 (7%)	5 (10%)	9
Can read and write . .	17 (30%)	7 (16%)	24
Standards 1, 2, 3 . .	15 (26%)	12 (29%)	27
Better than Standard 3 .	9 (15%)	5 (10%)	14

*Degree of intelligence.*—The method of MM. Binet et Simon, as arranged by Dr. W. C. Sullivan (see *Lancet*, March 23rd, 1912, and also Myers' *Introduction to Experimental Psychology*), was applied in 41 cases (19 male and 22 female). Reasonably reliable results were obtained in 33 cases (16 male and 17 female). I may perhaps explain, for the assistance of those unacquainted with this method, that it consists of a number of tests arranged in ages, it being found that such tests may be reasonably expected to be passed by average children of each particular age. The average degree of intelligence was that of a normal child of 9 years for the male cases, and a normal child of about 9½ years for the female cases. To give details would require a paper solely devoted to this subject; but I may say that the highest age reached was 11 years for the males, and rather over 11 years for the females.

The tests are intended as tests of intelligence, and not of education. I may mention that these tests were not applied until it appeared from other considerations that the prisoner was feeble-minded. No case was reported as feeble-minded merely because he or she did not reach a certain standard in these particular tests.

*Personal habits.*—I have mentioned already that 28 men and 30 women were definitely chronic alcoholics. Very close questioning has to be used before these facts can be brought out. The majority of cases, even those with many convictions for drunkenness, always representing themselves in the first instance as most temperate.

I may mention here that 2 of the men and 4 of the women had been inmates of an asylum at some period of their lives. This was verified by information from the asylums concerned.

*Family history.*—This is most meagre and unsatisfactory. The prisoners were generally very vigorous in their denial of any family insanity or alcoholism. But patient questioning

elicited a history of definite alcoholism in the father in 8 cases, mother in 1 case, and of both parents in 4 cases.

A history of insanity was found in the father in 1 case, mother in 1 case, brother 4 cases, sister 1 case, uncle 1 case, aunt 4 cases, nephew 1 case.

A history of epilepsy was obtained in the father, in 1 case, mother in 2 cases (one of these cases had an epileptic child and was herself an epileptic). These figures are, of course, too small and the information too scanty to be of any practical value. Probably if the information could be obtained from outside sources some interesting figures might be got.

### *Physical Characteristics.*

*Heart.*—Three men and 4 women had organic heart disease in every case of the mitral variety.

*Lungs.*—Seven men and 3 women suffered from chronic bronchitis. One woman had phthisis.

*Abdomen.*—Four men had hernia.

*Reproductive organs.*—Seventeen men had a markedly large penis, and the testicles in 3 were of a very large size. On the other hand, 17 men had small testicles (in 12 cases combined with a small penis). There was very scanty pubic hair in 4 men. One man had breasts of a marked feminine type.

*Hair.*—Fifteen of the men could be described as very hairy, and in 19 women I should say that the amount of hair was above the average.

*Eyes.*—No very marked points. One woman had irides of different colours, and 1 woman double internal strabismus. The vision in 24 men and 18 women was defective.

*Ears.*—I described the ears of 26 men as "large" and of 7 men as "small." The respective figures for the women were 5 "large" and 7 "small." The lobules of the ears were adherent to the cheeks in 7 men and 12 women.

Marked "Darwinian tubercles" in 3 men and 2 women. One man had markedly deformed ears. One woman had defective lobules. In 32 men and 18 women the hearing was distinctly defective.

*Cranium.*—I have not measurements of all the cases, but I described the heads of 21 men as "small" and 16 men as

"large" (2 of them were distinctly hydrocephalic). For women the figures are 18 "small" and 5 "large." One man had a markedly asymmetrical head.

*Jaws.*—Large jaws were distinctly more common than small.

*Palate.*—Abnormalities of the palate existed in a number of cases. I have marked 5 as "V-shaped" and 6 as "saddle-shaped." One man had thumbs of the "simian" type.

*Relation of height to weight.*—Taking "Hutchinson's tables" and excluding all the elderly cases and cases with marked physical disease, the following results were obtained. Of the men, 7 (12 *per cent.*) were above the normal weight for their height, 9 (15 *per cent.*) were about the average weight, and 24 (42 *per cent.*) were below. Of the women, 22 (51 *per cent.*) were above the average, 10 (23 *per cent.*) were about the average, and 8 (18 *per cent.*) were below average. These are the reception weights; most of the cases gained weight during their sentence.

*Mind conditions.*—Twenty-seven men and 20 women showed depression, 11 men and 13 women exaltation in some degree, 2 men and 1 woman were inclined to be destructive, 4 men and 11 women showed marked irritability, 10 men and 22 women were emotional.

*Memory.*—An attempt was made to estimate this in every case. In only 3 men and 3 women could the memory possibly be called good. In 18 men and 15 women the memory was definitely bad.

*Sleep and dreams.*—Nine men and 9 women described themselves as bad sleepers. In several instances this statement was contradicted by the night report. A history of definite dreams was found in 12 cases—they were of a sexual character in 1 man, of a terrifying character in 1 man and 3 women, about animals in 2 women, of a religious character in 1 woman, about their children in 2 women, about her mother in 1 woman, and 1 woman always dreamed about "gold."

*Disposal of the cases on discharge.*—Fourteen men and 5 women were sent to the workhouse of their district, having expressed their willingness to go there; of these 1 man and 1 woman soon after returned to prison under a new sentence. The majority of the cases, however, absolutely refused to consider the idea of going to the workhouse, and clearly had a strong objection to that institution.

Three men were certified insane and sent to asylums; 1 of them died in the asylum three months later; 1 man died in prison; 4 men were handed over to their friends on discharge, 1 woman was sent to a "home"—she soon after returned to prison. At the date of writing (December 12th) 2 men and 2 women are still in prison under their original sentences, and 2 men and 2 women are in prison under new sentences. The remainder were discharged in the usual way, and have mostly been lost sight of.

With very few exceptions the cases have behaved well while in prison. Some are liable to sudden outbreaks of temper. But they are on the whole easily amenable to tactful management. Many of them do a fair amount of mechanical work.

*What might be done with the cases?*—Three of the senile men appeared to have respectable relations able and willing to take care of them. If looked after at home they might be all right; but it should be mentioned that two of these three cases were guilty of indecent assaults on small girls. One young man, unintelligent, but in no way of criminal instincts, had a very good home. I do not think it likely that he will offend again. There were eight young prostitutes. Weak will-power was the *fons et origo mali* in these cases. I am of opinion that with many of these cases much might be done by a *long* period of good discipline and proper training.

Among the alcoholics, 1 man and 5 women were not too far gone, in my opinion, to be restored by a long period of training.

Of the lads under twenty, 3 might be improved by prolonged training in a suitable institution, where they could learn a trade. An ordinary "Borstal" Institution would not do; they would be a constant disturbing factor in a class of normal lads.

Excluding the man who died in prison, and the 3 men certified insane, 75 cases remain to be considered; all these would require permanent care and control, and they may be classified as follows:

(1) Fourteen men and 10 women would be incapable of doing any useful work on account of old age or physical infirmity. These would be suitably provided for by permanent detention in a workhouse infirmary.

(2) One man and 4 women would be practically unemployable on account of their mental defect alone.

(3) Eighteen men and 10 women would be quiet, steady, and contented workers in an institution. Some of these would, of course, be merely "hewers of wood and drawers of water," but a fair proportion could be trained to do useful and remunerative work.

(4) Two men and 6 women would work fairly well under very tactful management ; but their great irritability of temper and the marked instability of their characters would make them a disturbing factor in any institution. They would require to be kept in a separate class.

(5) Ten of the men are idle, "work-shy" vagrants. No training would ever get them into habits of work. Something might perhaps be done by placing them under less comfortable conditions than the other classes, and making extra luxuries the reward of a certain amount of work.

I am indebted to the Prison Commissioners for permission to publish these notes, and I would also express my thanks to Mr. G. J. Rons and Mr. W. J. Smith, of Stafford Prison, for their assistance in preparing some of the statistics.

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*Suicide among Indian Convicts under Transportation.*

By MAJOR J. M. WOOLLEY, I.M.S., M.D. Cantab., D.P.H.,  
Senior Medical Officer, Port Blair.

THE question of suicide is one that has exercised the minds of most persons at one time or another, as cases are of such common occurrence, and present such a variety of features, that anyone interested in present-day social conditions cannot fail to give the matter some amount of consideration.

The relative frequency of this offence among certain communities in Europe has been rightly or wrongly taken as pointing to some defect in the conditions of life of the people among whom it occurs. In attempting, however, to arrive at the causation or circumstances that conduce to bring about an unusual tendency to suicide on the part of certain peoples, it becomes evident that the problem is by no means easy of solution. It is but natural to suppose that such conditions as poverty, overcrowding, bad sanitation, and such-like adverse circumstances, affecting as they do the masses of the population,

also other conditions, such as competition due to over-population, resulting in an insufficient wage-earning power, and a comparatively insufficient food supply, such as obtains especially at times when trade is bad among densely populated centres, such as the large manufacturing towns in Europe, would undoubtedly lead to an increase in the number of suicides, and that those nations in which these conditions were of most frequent occurrence would be the ones in which the suicide figure would be higher than in others in which such conditions were less common. Again that certain other factors, such, for instance, as compulsory military service, or the absence of adequate moral instruction in the education systems of different nations, might have some effect in this direction. Such circumstances, however, curiously enough, do not seem to be accountable for the disparity that prevails among the different peoples as regards this tendency to suicide. For instance, it is very much more common in Denmark than in England, whereas one might have expected the reverse. The distress and want that prevails at times in the densely populated commercial centres in Britain, the extent to which the people are addicted to the use of alcohol, too, with all its attendant harmful results, the competition in trade, and worry and anxiety experienced in providing for the needs of families, might well be expected to cause a higher suicide rate in places where they occur than elsewhere where the conditions of life are simpler and more favourable. But neither the above-mentioned conditions nor any form of religion, nor vexatious laws, nor heavy taxation, nor national temperament, appear in themselves to have any direct effect on the number of suicides that occur in the different European States. Why should it be so high in Denmark and Saxony, for instance, while low in England and Italy? Reasons there must be, but they are not apparent, and the matter is a very difficult one to explain. It is strongly urged by some that a want of adequate moral instruction in elementary schools is a factor that will raise the suicide rate in countries where it obtains. This, however, is not certain.

As regards Eastern people, it has always been recognised as common among the Mongolian races, especially in Japan. It is, moreover, stated that in the year 1910, this country showed a great increase in suicides, there having been no

less than 10,000, which high figure is attributed to the stress of life resulting from the war with its subsequent exorbitant taxation: this is a possible cause for the increase, but it must be remembered that in that country suicide has never apparently been regarded as a crime, both social and religious, as is the case in the west.

As regards India, the case is different from that of Japan and China, and is more in accordance with what is seen in western countries. Suicide is viewed with abhorrence by the Hindoo population, and the ordinary rites corresponding with burial ceremonies are denied in such cases. Of recent years, it seems, a more lenient view has been taken in many cases, the argument used being the usual one, *viz.*, that the act was done during a fit of insanity. The reason for this, again, is the same as in other places—consideration for the feelings of the relatives of the deceased. Still, the religious view remains unshaken, and in a place like India, where the masses of the people are strictly bound by religious teaching, this may be a great factor in keeping down the number of persons taking their own lives.

In the case of the Mahomedan population also a similar view is taken regarding suicide; as to whether the spiritual penalties are still greater than in the case of Hindoos it is difficult to form an opinion. It is quite possible that they may be—as it would appear that among convicts at any rate, Mahomedans are less prone to suicide than are Hindoos—though it is quite possible that religious principles have but little to do with this.

#### *Suicides among Convicts.*

During the last ten years there have been sixty-five instances of suicide among the convicts, which gives a yearly rate per mille of '504. Among the numerous varieties of labour that convicts are called upon to perform, it is but natural that some are of a much more arduous nature than others, and are, moreover, carried on in more out-of-the-way places, where there is less to interest the convict than in the more crowded places near the headquarters station where most of the convicts are. Cases of suicide, however, are not more often met with in these parts than elsewhere, so that extra hard work in association does not seem prejudicial in this respect. One factor, however, stands out quite apart from the rest, namely



the Cellular Jail. This jail, as its name denotes, consists entirely of cells, and everyone incarcerated in it is in solitary confinement. It is the only jail of its kind in the Andamans. It is small, capacity 700, and is used for different purposes as regards classes of convicts. In accordance with the penal system now in vogue, every convict who comes into transportation has to go to this jail for six months, as a probationary period, which commences directly the few days' quarantine undergone on leaving the convict ship are over. There are on an average some 700 men admitted in this way yearly. They are drafted out into the Settlement for labour, at the end of six months in jail, if their conduct has been good.

Another class imprisoned there are convicts of any grade who misbehave outside. They get sentences of imprisonment and go to jail to serve them, leaving the gangs or the work they were employed on outside for the time being.

It is the above-mentioned new arrivals in the Cellular Jail that give a much higher proportion of suicides than the rest of the convicts. During the six years that this jail has been in existence, it is found that suicide was in proportion 6·4 times as common among this class of men than among the rest. This is probably due, partly at any rate, to remorse and acute mental depression, the solitary nature of the confinement inducing a melancholic frame of mind in persons who have before them a life sentence of banishment, and who have not had time or opportunity of learning the actual leniency of the system when once the six months' probation in jail is over, take a pessimistic view of things, and decide that the trouble is greater than can be borne.

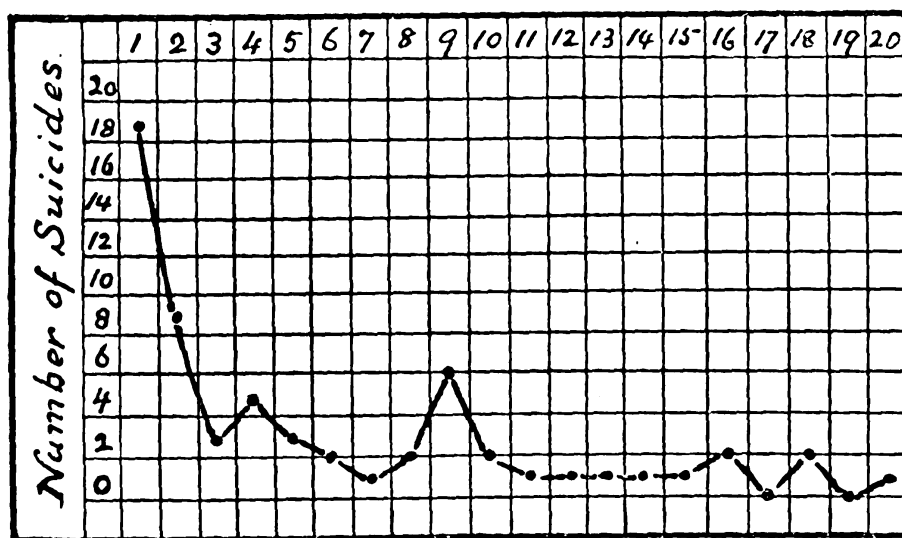
The following chart shows the incidence of suicide for a period of ten years,—1902 to 1911,—in relation to length of sentence, the notable feature being the much more marked prevalence during the first year or eighteen months of transportation, before there has been time for the mind to get rid of its ideas of home and relations, and to adapt itself to the new conditions.

It will be noticed that no less than 43·7 *per cent.* of all suicides occurred within the first two years of transportation, and the usual method was by hanging (90 *per cent.*) which is explainable by its being the most easy to perform for new arrivals, who during the first year or so do not work in boats or near the sea.

The figure for suicide in the Andamans is '504 per mille. How does this compare with the Indian rate? During the year 1909 there were 881 cases of male suicides in the Lower Provinces of Bengal, and it appeared doubtful whether these were all genuine suicides. That is to say, the figure is a maximum one. Taking the male population of this province as 27,500,000, we obtain a figure of '030 per mille, *i.e.*, the Andaman rate is 16·8 times higher than that of Bengal

*Chart showing Greater Liability to Suicide of New Arrivals.*

Year of sentence in which the cases occurred.



*Class of Criminals most prone to Suicide.*

The majority of those committing suicide had been sentenced under Section 302 of the Indian Penal Code—Murderers. They outnumbered the others by as much as 5 to 1. When it is noted that the proportional strength of murderers in the convict population is only some 59 *per cent.*, or 1·4 to 1, it will be seen that those most prone to suicide are murderers, and that this tendency is 3·5 times as strong among this class as among the rest.

*Racial Influences.*

Taking the three principle races present, *viz.*, Burmese, Hindoos and Mahomedans, the proportional numbers are 1, 18, and 3·8, Burmese being least and Hindoos most numerous :

1, 2.5, and 29, however, is the proportion for those of these races who commit suicide, from which it will be observed that the Burman is less likely and the Hindoo very much more likely to commit suicide than their proportionate numbers in the community would lead one to expect.<sup>(1)</sup> Adequate explanation as to this marked difference between the races is difficult to arrive at; whatever may be the reasons, the discrepancy cannot but be regarded as a very remarkable one.

The above remarks would indicate, then, that there are various conditions prevailing among the convicts which have their bearing on the suicide rate, and they may be stated as follows :

(1) Adverse circumstances : These are of a penal nature, and include transportation, prison discipline, hard labour, etc., and apply equally to all convicts.

(2) Some want of virility, stamina, or self-confidence, in the temperament of certain races of people—compare, for instance, Hindoos with Mahomedans. The latter have always shown themselves more masterful, active and self-reliant, the Hindoo temperament being of a more submissive and docile nature, and one it seems that, as far as suicide is concerned, is less able to withstand the stress of the initial stage of transportation.

(3) Youth : A period of life not far removed from that of childhood, during which the mental state is apt at times to be one of extremes, either of considerable optimism and self-confidence, or of a correspondingly deep depression, and giving up of hope in the future. The mental balance of the adolescent is more easily disturbed, especially in neurasthenic subjects. There is none of the experience of life to assist such persons with the knowledge that better things may be in store for them. The mind becomes beset by a deep melancholy, resulting from the realisation of the punishment before them, and in the absence of controlling and steadying influences an impulsive act of suicide may take place.

(4) A fourth factor, the most important of all, has now to be considered, *viz.*, a psychasthenic tendency. It will be admitted that there is something very contrary to the dictates of Nature in deliberate self-destruction in the case of a young man, and it is with young men that we are dealing. They are not the older persons who in western countries frequently commit suicide, having nothing further to live for, and as a desirable release

from the worries and troubles of life. Such cases are often much more easy to understand; there is more reason about them, and less suspicion of any deficiency in the mental condition. Cases such as these belong to a different type from convict cases; the same may be said of those suicides that occur in countries where under certain circumstances suicide becomes an honourable deed, in which the individual is called upon to sacrifice himself for the good name of his family. The individuals concerned are in such cases apparently perfectly sane people, and taking into consideration the social conditions under which they live, the act of suicide becomes easily understandable.

Let us return, however, to the convict type of suicide, which belongs to quite a different category. Are we justified in going a step further and saying that this factor we are considering is more than a psychasthenic one, and that it is indeed of a psychopathic nature, and that the familiar expression, "suicide whilst of unsound mind," is admissible in our cases? Circumstances would point distinctly in favour of such a verdict—at any rate as concerns the class of case with which we are dealing.

The following considerations bring out this point pretty clearly :—

Murderers are much more liable to commit suicide than are other classes of convicts; the number that do so are out of all proportion to their relative strength in the convict population. A man who has committed murder is, in fact, three and a half times more likely to take his life than any other convict would be.

There is, moreover, another very significant fact that must be stated concerning these murderers, *viz.*, that they are the men from whom a disproportionately large number of convict lunatics come. The asylum, indeed, contains as many as 92 *per cent.* of murderers, a figure which is 33 *per cent.* above their normal proportion in the population. It appears from this that the average murderer is a much more erratic person as regards his mental qualities than is the dacoit or habitual thief.

Insanity and suicide would thus appear to be very closely related; and if we say that most of the convict suicides are committed whilst of unsound mind we shall probably be correct in the vast majority of instances.

*Female Convicts.*

No reference has been made hitherto to the case of the women convicts, the figures and details given above having been obtained from statistics affecting the men only ; as regards the women there is less to be said, as the numbers are comparatively small, and the records are incomplete. Males outnumber females in the Settlement by some 20 to 1, so that such figures as are obtainable for the latter are necessarily small, and consequently of less value.

During the past five years there have been five attempted suicides in the Female Jail : it must be explained that prisoners here live in association, which probably accounted for the detection of the cases before life became extinct. The average number of female prisoners is 720 ; about half this number live outside as the wives of Self-supporter convicts in the villages. There have been no cases of suicide or attempted suicide among these village women ; such as have occurred have all taken place in the jail, and are attributable to punishments for misbehaviour. None of them were new arrivals and the attempted suicide-rate for the Jail is 2·76 per mille, which is extremely high. Too much importance should not, however, be assigned to this figure for the reasons above mentioned.

It may be here noted that in one respect there is a marked difference between India and western countries as regards suicide, *viz.*, in the sex-prevalence more men commit suicide in the West, the women numbering only some 20 *per cent.*, while in India the reverse is seen, the most recent figures showing that  $2\frac{1}{2}$  times as many women take their lives as men.

The jail figures, then, such as they are, are in accordance with this greater tendency to suicide among Indian women.

All the attempted suicides above mentioned were cases of Hindoo women—here again is seen the same peculiarity as was remarked in the case of the male convicts.

Such, then, are the conditions under which suicide occurs in the Andamans. As regards its incidence, it is 16·8 times as common as in India (Bengal). This figure may be considered a high one, but perhaps not markedly so, when one considers the dangerous and desperate dacoits, and various types of murderers undergoing transportation.

In this connection, however, it is necessary to mention that

the penal system in force is of a remarkably lenient nature, and quite distinct from such as prevails in Indian prisons ; and it may be taken as pretty certain that in this fact is to be found the explanation as to why suicide is not of more frequent occurrence than it actually is among the convict population of these islands.

(1) The author is difficult to follow here.—Ed.

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### Clinical Notes and Cases.

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*Criminal Types in a County Asylum.* By JOHN R. LORD, M.B., Medical Superintendent of Horton Asylum, Epsom. With a Summary of Eighty-nine Cases by G. N. BARTLETT, M.B., Assistant Medical Officer, Horton Asylum, Epsom, Surrey.

THE prime importance of classification of patients in asylums with a view to securing the best results of treatment cannot be denied. By classification is meant, not a rigid division of patients strictly according to their form of mental disorder, but rather a selective grouping of patients in wards and villas, where the amount of supervision, the nature of treatment, the extent of freedom and the general environment is best calculated to promote recovery, to discourage mental excitement, and to secure contentment and the highest possible standard of conduct in each case.

No effort is ever spared to prevent patients having an evil effect, one on another. Those whose residence in the asylum will be probably only of limited duration, as far as structural arrangements will permit, are kept apart from undesirables and institutionised chronics, particularly from those with depraved habits and tastes. Thus, many patients are discharged without ever acquiring much knowledge of asylum life proper, having resided mainly or entirely in the acute hospitals and convalescent villas.

Although it is a well acknowledged fact that insane patients are not, as a rule, prone to fraternise—the tendency being for each patient to live in a little world of his own—it is the experience

of every medical officer that undesirable friendships are liable to develop which operate against recovery or good conduct, and are productive of unhappiness. It is then necessary to take steps to withdraw these patients from each other's influence. On the other hand, it frequently occurs that innocent friendships between patients promote recovery, and in this way, patients help each other to a greater extent than is generally recognised. The tendency of patients to an isolated existence is to be combatted by every means in our power—a solitary life invariably leading to eccentricities of manner, a limitation of the ideation and a general lowering of moral tone and conduct. The gregarious habit requires all the stimulation possible if an asylum is to be kept as a hospital for the relief of human suffering and not as a place of mere detention.

This is only possible by keeping the patients suitably classified. Many difficulties lie in the way of this. The chief one is the different social position, the degrees of education and the great variation in the previous moral habits and characters of the admissions. All are mentally sick, and as such, demand medical attention and nursing according to the seriousness of their illness, neither more nor less. The medical officer disapproves of all snobbery, especially in regard to the treatment of disease—all are given his best attention. This to a large extent forms a bond of union between all classes of patients, who are taught that the institution makes no distinction, recognises no classes, and requires the best possible conduct from all. It is remarkable indeed how well the majority of patients, who are sufficiently sensible, fall in with this.

But how difficult is all this when one has in addition to deal with the more or less criminal type! The instincts of the criminal are anti-social, and there is no place in a modern asylum suitable for him. Not uncommonly his mental disorder fails to mask or vary his criminal propensities. He is often an inveterate grumbler, malingerer, a persistent petitioner for things he cannot hope to obtain, and a centre of disaffection. The indeterminate character of his detention annoys him. The truth is not in him; he exaggerates trivial matters, makes groundless charges of unkindness and cruelty, and cannot be trusted for a moment. Kindness and gentleness he usually mistakes for weakness, and is callous and selfish in a degree. He lays claim to every privilege whether he is deserving or not.

Frequently he is positively dangerous, more so because of his criminality. If he is industrious, it is with a strict eye to privileges, and commonly he cannot be allowed to work. As a rule he cannot be given any liberty and often requires constant supervision.

The only way to treat the more marked cases is to isolate them as far as possible in certain wards. Now this means that certain of the wards are run on lines hardly consistent with the ideals which form the basis of the treatment of the insane generally, and these methods are apt to creep into other wards, where they are in a degree reprehensible. These "strong" wards are not the places to train attendants in, and when the latter are moved to other wards, they have much to unlearn.

All this is very distressing, but it cannot be helped as things are at present. The utmost kindness is used, but the criminal patients' liberty must be unduly restricted so long as we have to house them.

The whole policy of modern prison treatment is to separate new offenders from the old criminals, yet how difficult is it to keep apart the insane from the insane criminal! The ordinary insane who exhibit dangerous characteristics — persistent violence, destructiveness, etc.—of necessity have to be housed in the same wards as the dangerous criminals, and, as may be imagined, are not likely to receive benefit by the association. The better behaved criminals cannot be kept separate from other patients. It must considerably add to the anxiety of the relatives and friends of patients to know that such contamination occurs, and it is quite impossible to arrange otherwise.

Great effort is made to reform and bring to an ordinary decent way of living the more degraded types of humanity we receive, and, as a rule, with more or less success. Even the insane criminal may improve, but in most cases it is quite a hopeless task to reform him. More could perhaps be done in special institutions where more freedom could be given with an adequate and specially trained staff, but in asylums no risks can be taken with a dangerous class of this description.

No less than fifty-one insane criminals were admitted into Horton Asylum since 1902 in the usual way—through the infirmaries or transferred from other asylums. We cannot blame the Government regarding *their* admission. There ought, however, to be some easy method of drafting to special



institutions the more marked types after clearly proving their character.

The ordinary insane who by reason of their mental state are led to commit, or attempt to commit, crimes short of murder, are not objected to. They form a sufficiently large class to successfully cope with in asylums, without the habitual criminal.

But what can be said regarding the admission of those criminals who go insane in prisons? Some thirty-eight cases have been admitted from H.M. prisons since 1902 mainly of this class. The care of most of these we should be relieved of. The duty of the Government is to make suitable provision for them in special institutions, and thus to segregate them from the rest of sane and insane humanity.

We have not the least wish or desire to shirk our rightful duty to the insane, however troublesome or dangerous they may be. It is the admixture of criminality in ordinary asylum environment we take exception to, and find difficulties with, and which call for this special accommodation.

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*Summary of Cases of Criminal Types by Dr. Bartlett.*

These cases have been collected from those admitted to Horton since its opening in 1902.

The number with criminal characteristics and history, admitted through the ordinary channels, is probably much too low, as, especially in the earlier records, many of the histories are either absent or incomplete. Thus, the majority recorded under this heading have been admitted during the last six years.

The number admitted from prisons directly or indirectly is approximately correct. All have been included, though in some few cases the crimes committed were purely the outcome of a pre-existing mental disorder—such as general paralysis and delusional insanity. These, almost certainly, would have found their way into an asylum through the ordinary channels ultimately.

The cases admitted from the infirmaries comprise those who have a record of convictions, the exact number of which is in some cases not known, and who showed criminal characteristics and in most cases, feeble-mindedness, degeneracy, loss of moral

sense and self-control, alcoholism, etc. Cases in which, prior to admission, criminal offences had occurred which were obviously the result of mental disease are not included.

It is noteworthy that only eight of the criminal types admitted from the infirmaries have come under consideration for discharge, six males, and two females.

None of those admitted from prison have been discharged, and apart from death and occasional transfers to other asylums, they remain a constant undesirable addition to the population of the asylum.

One prison case was convicted for a murderous assault on an attendant, and was removed to Broadmoor.

*Cases from the Poor-Law Infirmaries.*

*Males.*

CASE 1.—Twenty-five convictions : moral insanity, typical degenerate criminal, untruthful, cringing, querulous, malicious, treacherous, unemployed, under continuous observation.

CASE 2.—Four convictions : imbecile ; hallucinated, childish, useless, threatening, antisocial ; under continuous observation ; insane heredity.

CASE 3.—Six convictions : alcoholic ; mania ; previous attack ; talkative, mischievous, abusive, unemployed ; under continuous observation.

CASE 4.—Eleven convictions : five years' penal servitude ; moral imbecile ; common type of feeble-minded criminal ; uneducated, unemployable.

CASE 5.—Two convictions : alcoholic ; delusional insanity ; cunning, treacherous, threatening, attempts escape, writes indecent letters, no moral sense ; insane heredity.

CASE 6.—Two convictions : alcoholic ; moral imbecility ; developed general paralysis, thorough blackguard, done no work for nine years ; feeble-minded, uneducated, no moral sense.

CASE 7.—Twenty convictions : alcoholic, been in inebriates' home ; melancholic, hallucinated, delusions of unworthiness, childish, feeble-minded ; unemployed, under continuous observation.

CASE 8.—Two convictions : depressed, hallucinated, previous attack, lazy, slovenly, unemployed ; under continuous observation ; transferred.

CASE 9.—Three convictions : alcoholic ; systematised delusions of persecution ; foul-mouthed, querulous, lacks self-control ; insane heredity.

CASE 10.—Four convictions : solicitor struck off rolls ; alcoholic ; systematised delusions, lazy, querulous, obstinate, troublesome ; resents discipline ; insane heredity ; transferred.

CASE 11.—One conviction : alcoholic ; degraded, criminal type, lacks moral sense, partly an imbecile, partly a knave. Died.

CASE 12.—Six convictions : mania, alcoholic in type ; career, that of a typical hooligan ; foul-mouthed, lacks self-control, perverse, trouble-

some; insane and alcoholic heredity. Discharged relieved; previous attack.

CASE 13.—Six convictions: moral imbecile; twice committed arson out of spite; feeble-minded, querulous, cringing hypocrite; worker.

CASE 14.—Several convictions, one over four years: army ruffian, deserter; systematised delusions of persecution; hostile, noisy, foul-mouthed, quarrelsome, violent, vindictive, untruthful; escape; under continuous observation.

CASE 15.—Thirty-two convictions: three years State inebriate reformatory; moral imbecile, plausible, querulous, garrulous, lacks self-control, untruthful, no moral sense; under continuous observation; partially employed.

CASE 16.—Several convictions: earned title of "champion malingerer"; moral insanity, weak-minded, uneducated, done no work since æt. 18, deliberate liar, querulous, quarrelsome, jealous, unfriendly and malicious towards other patients; partially employable.

CASE 17.—Two convictions: no moral sense, noisy, quarrelsome, interfering, unemployable; has developed general paralysis; insane heredity.

CASE 18.—Twenty-two convictions: reformatory; alcoholic; melancholia, suicidal, cringing, typical criminal appearance; fair conduct; employed. Discharged.

CASE 19.—Several convictions: bad alcoholic; discharged from army with ignominy; no moral sense; developed general paralysis. Dead.

CASE 20.—Three convictions: alcoholic; recent mania; very low type; insane heredity. Discharged.

CASE 21.—Several convictions: three years for stealing; acute confusional insanity. Died in two months.

CASE 22.—Three convictions: dementia paranoïa; hallucinated, persecuted; very low type; impulsive, violent; degraded, unemployable, continuous observation.

CASE 23.—Thirty-three convictions: alcoholic, no moral sense; restless, querulous, untruthful, thief, attempts escape, unemployable; has developed general paralysis; insane heredity.

CASE 24.—One conviction: eighteen months for stabbing; melancholia; uneducated, feeble-minded type; insane and alcoholic heredity; worked. Discharged.

CASE 25.—Four convictions: dementia paranoïa; persecuted, styles himself "His Majesty" and "Christ"; katatonic features, no moral sense; quarrelsome, noisy, impulsive, given to auto-mutilation, practises self-abuse; occasionally employable; continuous observation.

CASE 26.—Three convictions: alcoholic; systematised delusions; albino, lazy, anti-social, unemployed, continuous observation.

CASE 27.—Two convictions: dementia præcox; vicious, troublesome; improved and was discharged after a long convalescence.

CASE 28.—Five convictions: systematised delusions; hallucinated; imbecile type, fair conduct; occasionally needing continuous observation. Transferred.

CASE 29.—Several convictions: imbecile; restless, hallucinated, suicidal, troublesome; violent temper. Transferred.

CASE 30.—Two convictions: low-grade imbecile; suicidal on admission; untrustful, mischievous, needs strict control.

CASE 31.—Two convictions: alcoholic; two years in reformatory; insanity with epilepsy; exceedingly quarrelsome, explosive, childish, lacking in moral sense; employable at times. Transferred.

CASE 32.—Several times in prison: army bad character and deserter; involuntional case; depression with delusions; recovered in six months. Insane heredity (two brothers, one sister).

CASE 33.—Fourteen years' penal servitude: a coiner; systematised delusions; "Prince of Battenberg"; querulous, talkative, excitable; partially employable; under continuous observation.

CASE 34.—Several convictions: a vagrant; imbecile, silly, childish, lazy; occasionally employable; insane heredity.

CASE 35.—Three terms penal servitude: insanity with epilepsy; fits commenced at fifty years; excitable, explosive, dangerous, under continuous observation; brother committed murder.

CASE 36.—Several convictions for theft; alcoholic; imbecile, hallucinated, noisy, unemployable.

CASE 37.—Vagrant: tried for murder in a drunken row; systematised delusions; hallucinated, troublesome, excitable, under continuous observation; unemployable; insane heredity (brother here).

CASE 38.—Nine convictions: dementia præcox; very excitable, noisy, restless, unemployable, faulty habits; insane heredity; transferred.

CASE 39.—Thirteen convictions: dementia præcox; catatonic, impulsive, dirty, slovenly, useless.

CASE 40.—One conviction (twelve months for stabbing): systematised delusions of persecution; impulsive, violent, dangerous; under continuous observation.

CASE 41.—Two convictions: recurrent mania, previous attacks; insane heredity. Recovered.

CASE 42.—Several convictions: imbecile; suicidal, impulsive, lacks self-control, troublesome; under continuous observation; insane heredity. Dead.

CASE 43.—Two convictions (one three years): systematised delusions of persecution; unreliable, dangerous, impulsive; under continuous observation.

CASE 44.—Six convictions: dementia paranoïa; delusions of exaltation; hallucinated, hostile, mischievous, restless, noisy, secretive, deceitful; employable at times.

CASE 45.—Eight convictions: moral insanity; hallucinated, worthless, lazy, no moral sense, agitator, querulous, self-abuse; under continuous observation.

CASE 46.—Five convictions: alcoholic; demented, uneducated, worker; well conducted.

#### *Females.*

CASE 47.—Nine convictions: imbecile; three suicidal attempts; no moral sense, deceitful, foul-mouthed, abusive, dangerous; occasionally a good worker.

CASE 48.—Several convictions : alcoholic ; imbecile ; lacks moral sense, quarrelsome, abusive, violent ; continuous observation.

CASE 49.—Two convictions : alcoholic ; prostitute ; moral imbecile ; noisy, degraded, violent ; under continuous observation ; alcoholic and epileptic heredity.

CASE 50.—Five convictions : systematised delusions ; noisy, violent ; under continuous observation ; brother a criminal patient here : they were associated in crime.

CASE 51.—Several convictions : alcoholic ; two illegitimate children ; primary dementia ; irresponsible, lacks moral sense ; good worker.

*Cases from H.M.'s Prisons and Criminal Lunatic Asylums.*

*Males.*

CASE 52.—Two convictions ; indecent assault and sodomy ; moral imbecile ; excitable, noisy, querulous and full of grievances ; malicious, untruthful, treacherous, threatening ; no moral sense ; continuous observation.

CASE 53.—One known conviction : incorrigible rogue known to police many years ; alcoholic ; noisy, foul-mouthed, filthy ; a general paralytic. Dead.

CASE 54.—Nine convictions : transfer from Borstal ; systematised delusions of persecution : related to royalty. Very dangerous ; *removed to Broadmoor* after conviction for severely injuring an attendant.

CASE 55.—Nine convictions : transfer from criminal lunatic asylum ; systematised delusional insanity ; persecuted by unseen agency, hallucinated, exalted, personality changed ; noisy, excitable, querulous, orator ; refuses work ; under continuous observation.

CASE 56.—Eleven convictions : transfer from criminal lunatic asylum ; systematised delusions of persecution, hallucinated ; vindictive, impulsive, dangerous, very quarrelsome ; under continuous observation ; two brothers criminals.

CASE 57.—Nine convictions : transfer from criminal lunatic asylum ; industrial schools ; systematised delusions of persecution by unseen agency, altered personality ; exalted, hostile, threatening, explosive ; under continuous observation ; unemployable ; bad criminal and alcoholic heredity.

CASE 58.—No particulars of convictions : transfer from criminal lunatic asylum ; feeble-minded ; systematised delusions of persecution ; altered personality, "Baron Rothschild," "The Saviour" ; sullen, threatening, hostile, resents all authority ; under continuous observation.

CASE 59.—Six convictions : transfer from criminal lunatic asylum ; one term, ten years, for threatening murder ; moral insanity ; feeble-minded, very degenerate ; querulous, revengeful, threatening ; under continuous observation ; mother insane.

CASE 60.—Indeterminate sentence : indecent assault ; imbecile ; very low grade ; deaf-mute ; very childish ; no self-control ; under continuous observation.

CASE 61.—Six convictions : moral insanity ; previous attack ; halluci-

nated, exalted, claims a title ; useless, lazy, excitable, refuses work ; under continuous observation.

CASE 62.—Six convictions : moral insanity ; feeble-minded, hallucinated, dull, no moral sense, untruthful, self-abuse, conspires, vindictive, querulous, dangerous ; under constant observation ; insane heredity.

CASE 63.—Two terms penal servitude : systematised delusions ; grandiose, exalted ; Preacher, General, etc. ; querulous, declamatory, no moral sense, untruthful, malicious ; continually writes to Royalty and State officials, source of unrest in every ward, refuses work ; insane heredity.

CASE 64.—Two convictions : general paralytic, usual course ; criminality some years prior to paralysis ; unemployable.

CASE 65.—Twelve convictions : systematised delusions ; feeble-minded, dissatisfied, querulous ; now catatonic with a peculiar stereotyped attitude ; employable at times.

CASE 66.—Two convictions : systematised delusions ; criminality ; the outcome of delusions ; not troublesome ; transferred.

CASE 67.—Nineteen convictions : moral imbecility ; hallucinations of all the senses ; locomotor ataxy ; no moral sense ; furtive, cunning, untruthful, very malicious, given to agitation, threatening, hostile, foul-mouthed, no self-control ; under continuous observation ; (sister a criminal, a patient here).

CASE 68.—Fourteen convictions : dementia paranoïa ; "Son of the German Emperor" ; aurally hallucinated ; hostile, threatening, dangerous, noisy, abusive, catatonic features, degraded habits ; continuous observation.

CASE 69.—No particulars ; systematised delusions ; previously insane ; suicidal ; nasal feeding ; malignant, hostile, quarrelsome, vindictive ; under continuous observation.

CASE 70.—Several terms of imprisonment ; industrial school ; thief, rogue and vagabond ; moral imbecile ; no moral sense, masturbates openly ; untruthful, vicious, degraded habits ; under continuous observation ; unemployed ; alcoholic, epileptic and insane heredity.

CASE 71.—One conviction : general paralytic ; conviction the obvious outcome of his disease.

CASE 72.—Eighteen convictions : imbecile ; no moral sense, very low type ; uneducated and uneducable ; untruthful, deceitful, jealous, vicious, malicious ; under continuous observation ; partially employable.

CASE 73.—Two convictions : general paralytic ; convictions the outcome of disease.

CASE 74.—One conviction : two attempts at suicide ; melancholia ; retarded, hallucinated ; feeble-minded, troublesome, agitator ; under continuous observation. Insane heredity. Transferred.

CASE 75.—Seven convictions : alcoholic ; general paralytic ; convictions prior to general paralysis.

CASE 76.—One conviction : silly theft, the outcome of general paralysis.

CASE 77.—Seven convictions : moral imbecile ; no moral sense, self-abuse ; abusive, foul-mouthed, degraded habits, perverse, troublesome ; under continuous observation. Transferred.

CASE 78.—One conviction : the outcome of general paralysis.

CASE 79.—Two convictions: dementia paranoia; hallucinated, persecuted; excitable, impulsive; employed at times.

CASE 80.—Six convictions: dementia paranoia; hallucinated; very low type; noisy, impulsive, dangerous, unemployed; under continuous observation.

CASE 81.—No particulars of conviction: hallucinated; delusions of persecution; partially employed. Transferred.

CASE 82.—No particulars: dementia paranoia; impulsive, troublesome, dangerous; under continuous observation; partially employable.

CASE 83.—One conviction: deluded and hallucinated; dangerous. Transferred.

CASE 84.—Five convictions: dementia paranoia; grossly irrational, impulsive, self-abuse, employed; under continuous observation.

CASE 85.—Five years' penal servitude and other convictions. Transferred from criminal lunatic asylum: systematised delusions with altered personality; "His Divine Majesty"; hallucinated, noisy, violent at first; now demented; under continuous observation.

CASE 86.—No particulars: dementia. Died in five weeks.

CASE 87.—No particulars of crime: general paralytic. Transferred.

CASE 88.—One conviction: general paralytic—conviction outcome of disease.

CASE 89.—Three years' penal servitude. Transfer from criminal lunatic asylum: deluded, hallucinated, persecuted; "special divine powers"; desperate criminal; excitable, abusive, threatening; under continuous observation; insane heredity. Transferred.

## Part II.—Epitome of Current Literature.

### I. Physiological Psychology.

*The Function of Dreams* [*Ueber die Funktion des Traumes*]. (*Jahrb. f. psychoanalyt. Forsch.*, Bd. iv., 1912.) Maeder, A.

In the investigation of dreams, according to Freud, we must distinguish between the dream as a process and the dream as a product. As a process it is the function of dreaming to act as the guardian of sleep, and to secure its continuance. Two kinds of dreams may be brought forward to support this view. The first contains the numerous dreams in which the fundamental wish is to go on sleeping. Maeder narrates dreams in illustration, as of the patient who, having been directed by the doctor to write down his dreams directly they occur, merely dreams that he has done so and goes on sleeping. In the other group external stimuli are taken up into the dream, and so manipulated by sleeping consciousness that they aid sleep, as when a child with a full bladder dreams of urinating, and thus relieved (even though no real evacuation has occurred) is enabled to go on sleeping. Thus to act as a pro-

tection is, Maeder believes, the primary function of dreaming regarded as a process.

There are further secondary functions, which may even have a kind of teleological character. Thus dreams, while still unanalysed, may lead up to a decision which, in the waking state, the dreamer finally makes, though it may not be until subsequently that he realises that his decision had been foreshadowed in his dreams. This may happen, for instance, with regard to breaking off a relationship with another person. Dreams in point are related. In this secondary function dreaming has a biological significance as a kind of preparation or play, and falls into line with the biological conception of play worked out by Groos, Carr, and others. Reference is also made to a related function of dreaming by which it exercises a kind of catharsis, draining off anti-social impulses into harmless channels, and so again exerting a biological function in adapting the individual to his environment and furthering his development.

HAVELOCK ELLIS.

*The Metaphysical Symptoms of Neurasthenia [Le Symptôme Métaphysique de la Neurasthénie]. (Rev. Phil., Sept., 1912.) Martin, A.*

Of those symptoms of neurasthenia which indicate lack of balance rather than exhaustion, some, among highly cultured subjects, occur in the sphere of metaphysics, and are concerned with the origin and the final cause of things, eternity, and the absolute. Martin does not believe that an interest in such things, even amounting to anxiety, is necessarily morbid. It only becomes so when, in place of being intermittent or duly restrained, it becomes a constant anguish, a sort of obsession. An anxiety of this kind is a symptom of a fundamental psycho-pathological state, comparable to the various phobias, with which, indeed, it may alternate.

The condition is illustrated by four cases. In the first a man who had had two subacute attacks of neurasthenia in youth, with organic disturbances, became tormented in early manhood by the question of human destiny and by the vanity of human activities. He combated his disillusion by philanthropy, and finally the nightmare was dissipated, and he engaged in practical work, in which he acquitted himself well. The second case began with agoraphobia which became transformed into a general terror of infinite space, and of infinite time, of eternity. The third, who is thoroughly neurasthenic, has had several severe crises of the ordinary form, with nosophobia, etc. He is a convinced agnostic, but he bitterly repents his loss of faith in a personal God; during the severe crises, however, this feeling is diminished by the nosophobia. At the present time both sets of symptoms are absent. The fourth, still young, is the victim of "acute idealism." The analysis of knowledge has led him to the position that it is impossible to get away from oneself or to perceive anything but oneself, and this causes him an anxious feeling of isolation.

In all these cases, Martin believes, the anxiety is the fundamental mental element, and of the same nature as a phobia; the object of the anxiety is secondary. The cause is doubtless organic. We must not imagine that metaphysical speculation will disturb the mind; there



must be a pre-existing defect. Even morbid anxiety, however, Martin concludes, may be regarded as a mark of distinction which raises man above the beasts.

HAVELOCK ELLIS.

*The Case of Gogol [Der Fall Gogol].* (Schrift. d. Ver. f. freie psycho-analyt. Forsch., No. 2, 1912.) Kaus, O.

This study of the famous Russian novelist illustrates the methods of the Adlerian school of psycho-analysis. Adler believes that the neurotic disposition is marked by congenital defect, which leads to a compensatory protective process tending to supply the defect, and that this compensatory process may, in specially highly endowed persons, amount to genius, and its analysis serve to explain genius. A profound disharmony and instability may still remain. This is illustrated by Gogol's case.

There was no marked neuropathic heredity. But Gogol's father showed a constant incapacity to make his way in life, and sought compensation in literary efforts, which his son was to carry on and bring to full perfection. Little is known of his mother, who seems to him to have had little place in his life. He was a spoilt child, having no brothers or sisters near his own age, and to this fact some significance is attached. He was a delicate boy, lazy, quite ungifted, weak in will, occupied with mischievous tricks, disapproved by his teachers, and disliked by his school-fellows. Herewith began an hostility with his immediate environment, constantly renewed. He began, however, to take an interest in acting (derived from his father), and to initiate dramatic performances. But at sixteen, to his disgust, he was still at school, and his father died. This was a great grief, and he resolved to play his father's part in the world, and to devote himself to literature. This proved a spur to activity. Then he conceived a hatred of school and of education generally, and a little later a hatred of provincial life. He must go to a great city; he went to St. Petersburg. In all his successive phases Kaus sees a conflict between an over-sensitive feeling of insufficiency and an exaggerated need of domination. All his plans came to grief. He wanted to be an actor, but his attempts came to nothing. He published a poem; it was feeble, the critics were severe; he burnt every copy he could obtain. Disgusted with St. Petersburg, he resolved to go to America, got as far as Hamburg, and returned to St. Petersburg. He became a very subordinate government official, and in the same year gave up his post.

But the hard pressure of life was good for his genius, and he gained strength from his failures. He had abandoned provincial life in disgust, and it was that life which now began to vitalise his literary art. But there remained the same insufficiency. Though once passionately in love, he had a life-long terror of women, and a life-long horror of death; his disappointment in love led to a fixed habit, and he never had relations with women. Yet he slowly developed both in personal character and in literary art, and at the age of twenty-seven produced his first important work. Fame followed, but Gogol only heard the jarring voices. Finally he became superstitiously religious,

fasted much (Kaus thinks there may have been some gastric disorder), and was found dead before a picture of the Madonna.

The conception of genius, as based on organic inferiority, is throughout interestingly developed.

HAVELOCK ELLIS.

*Jaw-winking* [Sullo "Jaw-winking Phenomenon"]. (*Rev. di Pat. Nerv. e. Ment.*, Oct., 1912.) Massalongo.

The already extensive literature of jaw-winking (the bibliography appended to this paper contains over sixty items) is here enriched by Prof. Massalongo with three new cases, bringing the recorded total to forty-three, and an interesting discussion.

In 1883 Marcus Gunn observed a girl, æt. 15, with congenital ptosis on the left side; whenever the lower jaw was depressed and deviated to the right, the left eyelid was suddenly raised, showing the upper portion of the sclerotic. This, the first case ever recorded, was a fairly typical example of jaw-winking. There are, however, numerous variations, and the ptosis need not be congenital, may be very slight, and even non-existent. The name applied to the phenomenon is perhaps not altogether happy. Massalongo would prefer to substitute "paradoxical elevation of the upper eyelid," or, more briefly, the "palpebral paradox" (*paradosso palpebrale*). It is a chronic and incurable affection, occurring chiefly in males.

In the three cases here described, ptosis was only present, and that to a slight degree, in one. In all of them the phenomenon was bilateral and of congenital origin. They were all men, healthy, active, and intelligent (one was of nervous temperament), two of them lawyers, the third an artisan. In all cases it was during meals—and as a rule only at this time—that the phenomenon was manifested. One, however, played the clarinet, and the movements of the jaw thus involved produced the same effects. It occurred in drinking as well as in eating. The eyelids would be suddenly and spasmodically raised, revealing the white sclerotics, and imparting an air of ferocity not corresponding to the real character of the men. In one case the phenomenon only occurred when the subject was eating with great appetite or ingesting a favourite food. In another case it was so pronounced that the subject wore smoked glasses when taking his meals at a restaurant to avoid attracting public attention.

Various explanations of the phenomenon have been put forward. The most usual and plausible explanation is that we are here concerned with an abnormal innervation of the elevator of the eyelid, which, instead of coming from the third pair, is connected with the trigeminal. Massalongo cannot accept this view unconditionally, though he believes that jaw-winking has an anatomical foundation. He regards jaw-winking as the effect of a teratological malformation, representing an atavistic revival of a function of primitive man. He finds the germ of this phyllogenetic theory in the investigations of Harman into the facial-complex of some animals in which the fifth and seventh pairs of nerves have a common origin. Harman's explanation, in so far as it involves the necessity of ptosis and an inevitable association of ptosis with jaw-winking, fails to fit, but it is held to be on the right lines. Jaw-winking

must not be regarded as the result of an accidental morphological anomaly, but as the relic of a definite and complex function, still to be observed in the large felines and in the dog and probably in primitive man, who possessed the same ferocity and voracity. It is "an atavistic return to the feline repast common to the beasts and to man in the Stone Age." The author might better have supported his thesis by demonstrating the habitual presence of the phenomenon in some existing race of savage mankind, or at least among the apes.

HAVELOCK ELLIS.

*Auto-suggestion. (Rev. de Psychiat., June, 1912.) Bernheim.*

Auto-suggestion is not only a suggestion which one makes voluntarily, it is more often a factor which springs up of itself within the brain. Suggestion is always purposeful, and at the same time it has its birth as a result of a stimulus. Just as in the material world there is no such thing as spontaneous generation, so there is no such thing in the psychic world. Every idea or image which has its origin in a sensation—it may be visceral, cardiac, muscular, etc.—but which is "self"-contained, may be described as auto-suggestion. The creative impression may be unknown or subconscious. When the brain is passive, when it is free from the reception of outward impressions, then it is that its automatic activity predominates. An active and attentive brain banishes the products of auto-suggestion as quickly as they are formed. Thus when the brain is dulled, control is lost and dreams arise. So it is that dreams may be described as hallucinatory auto-suggestions. It is known that experimentally we can influence and even create dreams. The natural dream arises by passive suggestion created automatically without the active co-operation of the subject. Dreams are psychic images which arise in the brain as the result of impressions, but which the subject cannot by any effort of will create; his conscious "ego" goes for nothing.

COLIN McDOWALL.

## 2. Clinical Psychiatry.

*Amaurotic General Paralysis [Paralysie générale amaurotique]. (Bull. Soc. Clin. Méd. Ment., March, 1912.) Ternel and Puillet.*

Case of a woman, æt. 56, the subject of general paralysis, in whom the most marked symptoms were hallucinations of almost every sense. The knee jerks were absent on the right, brisk, but of small excursion on the left. Pupils equal, reactions normal, hippus present, optic atrophy. The authors discuss the question whether the association of a hallucinatory state with amaurosis is to be looked upon as a syndrome or merely as a coincidence. Many such cases have been described, in the majority of which a spastic condition was present throughout the disease, but in some, as in this case, the reflexes tended to diminish.

Over twenty years ago Pierret noted the co-existence of mental symptoms simulating general paralysis with tabes, especially of the cervical type. In such cases the delusional state tends to become systematised, and is less incoherent, variable, and demential than that

of general paralysis. Pierret proposed the name of sensorial general paralysis for these cases. Probably they may be looked on as cases of amaurotic tabes associated with general paralysis. W. STARKEY.

*Two Further Cases of "General Paralysis" in Dogs [Deux nouveaux cas de paralysie générale du chien.] (Bull. Soc. Clin. Méd. Ment., July, 1912.) Marchand and Petit.*

In two former papers these authors have drawn attention to an affection of the nervous system in the dog, which results in demential, motor and convulsive symptoms strongly resembling those of general paralysis. Two further observations are here recorded fully.

The symptoms are very similar to those in man—the animals become dull and demented, losing all interest in their surroundings; they may even be thought by their owners to be going blind and deaf. Their gait is staggering, reflexes exaggerated, the appetite is gluttonous, and their habits become wet and dirty. Later, convulsions may occur. The age at onset is from twelve to eighteen months, and the duration seems to be from eight months to a year. The disease appears to set in some months after an attack of distemper, which seems to play in the dog a rôle similar to that which syphilis plays in man as a precursor of general paralysis.

*Post-mortem* a diffuse meningo-encephalitis is found chiefly affecting the frontal region. The pia is adherent to the cortex and is infiltrated with embryonic cells; there is marked peri-arteritis and peri-phlebitis of the meningeal vessels. The perivascular changes are also marked in the brain substance, both grey and white; there are also cell changes, displacement of nuclei, etc., spider-cells are numerous, some isolated hyaloid corpuscles are found in the cortex, and there is atrophy of the tangential fibres.

We have then apparently in distemper an infectious disease which is, at any rate in the dog, capable of initiating a subacute meningo-encephalitis comparable to general paralysis. May there not be some infections beside syphilis capable of acting as precursors in man?

W. STARKEY.

*Statistical and Clinical Observations on the Changes in the Incidence and Process of Progressive Paralysis in Elsass Lothringen [Statistische und klinische Beobachtungen über Veränderungen im Vorkommen und Verlauf der progressiven Paralyse in Elsass-Lothringen]. Psych. Allgem. Zeitschr. f. (vol. lxxix, No. 4.) Dr. Joachim.*

Dating from the year 1872, there are records of 730 certain cases of general paralysis in the asylum at Stephansfeld. Statistics show a gradual lessening in the proportion of paralytics to admissions, especially in the case of males. There is an increase in the number of unmarried cases. There is only a trifling lengthening in the duration of the disease. Alcoholism as a factor is recorded in decreasing grade, and there is a diminution in the paralytics drawn from the lower classes.

The demented form predominates more and more over the other forms, and remissions have become more frequent. Tabes appears to be associated more often with paralysis. HAMILTON MARR.

*Dementia Paralytica in Natives of Java and Madura* [*Dementia paralytica bei den Eingeborenen von Java und Madura*]. (*Allg. Zeitschr. f. Psych.*, vol. lxxix, No. 5.) van Brero. P. C. J.

Most authors who write on the subject are of opinion that dementia paralytica is seldom found in uncivilised races. In the asylum at Lawang (Java) from 1902 to 1909, 5·3 *per cent.* of the inmates were paralytics. The symptomatology is very like that found in Europeans. Delusions of grandeur, however, are not so forcibly expressed. The type of the disease is generally the classical one, the course short and rapid, death following about six months after admission in 23·5 *per cent.* The demented form is rare, and remissions are unknown. In the first stage there is often an impulse to incendiarism, which frequently leads to certification.

Alcohol and the harmful influences of civilisation are ætiological factors. As regards heredity and syphilis there are no certain data. Positive evidence of lues, however, was found in twenty-one cases out of thirty-three, and the same proportion of the patients showed stigmata of degeneration.

HAMILTON MARR.

*Cerebral Tumour and Korsakoff's Psychosis* [*Tumeur cérébrale et psychose de Korsakoff*]. (*Bull. Soc. Clin. Méd. Ment.*, May, 1912.) Bonnet.

This was a case of a gummatous growth originating in the brain-substance of the frontal region and involving both orbital lobes. The symptoms were in no way typical of frontal tumour, but were rather those of Korsakoff's psychosis—general mental reduction, amnesia of fixation, illusions, hallucinations, fabulation, muscular weakness and impaired gait. The knee-jerks, however, were exaggerated and the pupils contracted and unequal.

After three months' treatment the symptoms improved and the patient was taken out by her friends. Two months later she returned to the asylum with similar symptoms, but more marked loss of power in the lower limbs. She died a few days later as the result of a seizure. There was a history of alcoholism in addition to syphilis.

The brain of this patient was examined by Marchand and the findings are reported in the July number of the same journal. There was a diffuse meningitis present, the pia was adherent to the cortex, slight peri-vascular inflammation in both grey and white substance, the tangential fibres were degenerated and there were alterations in the cells. This bears out what is now generally taught—that in cases of cerebral tumours the mental symptoms are not so much due to the tumours themselves as to the diffuse lesions which accompany them.

W. STARKEY.

*Mental Troubles associated with Hæmorrhage into the Supra-renal* [*Hémorrhagie surrénale traumatique et troubles mentaux*]. (*Bull. Soc. Clin. Méd. Ment.*, March, 1912.) Guiraud, M.

A male patient, æt. 40, had a severe fall on his back a week before admission to the asylum. He complained of violent pains in the right flank, radiating to back and front, vomited several times and had

diarrhœa. In hospital he became so excited and hallucinatory that he had to be sent to the asylum. On admission his state was grave; tongue parched, sordes on lips, voice faint, skin and mucous membranes pale, pain on pressure in the right flank, radial pulse imperceptible, femoral pulse weak. The "white line," the anæmic vaso-motor skin reflex, was present. The diagnosis of "acute supra-renal syndrome" probably resulting from traumatic hæmorrhage was made and confirmed at autopsy, when the right gland was found to be entirely destroyed by a hæmorrhage, and the left partially so. The author discusses the question whether the mental symptoms are to be attributed to the suppression of the function of the supra-renals, and if so, what the mechanism of production is. Are they due to auto-intoxication resulting from adrenal insufficiency, or more simply to be looked on as a result of the cerebral anæmia set up by the extreme reduction of arterial tension?

W. STARKEY.

*Kraepelin's Present Opinions on the Classification of Mental Diseases: the Group of Paraphrenias [L'opinion actuelle de Kraepelin sur la classification des états délirants: le groupe de Paraphrenies]. (Rev. de Psychiat., Oct., 1912.) Halberstadt.*

This article is a foreword to a work soon to be published by Kraepelin on the subject. The latter has often insisted on the immature condition of psychiatry, and this effort is intended to make good some present defects in classification. Paranoia, Kraepelin places by itself; he insists on the importance of predisposition, an exaggerated self-esteem in the first place leading later to megalomania and delusions of persecution. The remaining psychoses are due to endogenous or exogenous causes.

The former include dementia præcox, a new group Kraepelin proposes to call paraphrenias, manic-depressive insanity, and the senile and pre-senile psychoses.

Paraphrenias were formerly included under dementia præcox; indeed their principal characteristic is the absence in them of the psychological abnormalities peculiar to this affection. Kraepelin distinguishes four varieties. The first, or systematised form, is in the main identical with the chronic psychosis described by Magnan. Another occurs only in women, and consists in slight mental excitement associated with grandiose ideas; the excitement is continuous, and true dementia never supervenes. The third variety is similar to the preceding, but has, as its distinguishing feature, marked fabrication associated with disturbances of memory. Finally, there is a form which may turn out to be an aberrant type of dementia præcox. This is characterised by the prominence of absurd delusions and want of co-ordination in judgment: stereotypism, mannerisms, negativism, suggestibility, and impulsiveness are absent.

Exogenous causes of insanity are alcohol, cocaine, and syphilis; others act chiefly on predisposed individuals. Under the latter heading come imprisonment, deafness, "mental contagion," and law processes, with their baneful effects on a minority of those exposed to their influence. Dr. Halberstadt draws attention to the fact that Kraepelin's original method is preserved, the evolution of mental disease forming

the basis of his classification, which remains essentially the same. The differentiation of paraphrenia curtails the domain of dementia præcox, and Magnan's disease receives recognition. Finally, the importance of morbid predisposition is insisted upon for some affections.

H. W. HILLS.

### 3. Treatment of Insanity.

*The Surgery of the Insane [La Chirurgie des Aliénés]. (Arch. Internat. de Neur., July and Aug., 1912.) Bechterew, W., and Poussèhe.*

The authors of this paper have had an extensive experience of surgery among the insane. They insist in the first place on the importance in such cases of the collaboration of surgeon and alienist. They then discuss the possibility of lasting ill-effects upon the mental state from anæsthesia and from an operation. With regard to the former they consider that the occurrence of either post-anæsthetic psychosis in the previously sane or of exacerbation of existing mental symptoms resulting from anæsthesia is very doubtful. As to psychoses, referred to the effect of operation, many of the cases formerly described were due to poisoning by antiseptics immoderately used. Others are due to suppuration or to the complete removal of essential organs such as the thyroid. Where the breakdown is referable to the shock of the operation, the latter (frequently a trivial one in such cases) merely accelerates an inevitable event.

Three classes of operation are distinguished :

- (a) Those designed to prolong life or relieve suffering without reference to the mental state.
- (b) Those directed to an extra-cranial lesion with a view to indirect influence on the mental state.
- (c) Those directed to a cranial or intracranial condition in direct relation with the mental state.

Operations of the first class are not considered. The indications for them and their technique are the same in the insane as in the sane.

Of operations of the second class the following are discussed :

(1) Removal of ovaries, either healthy or diseased : Formerly practised extensively for the relief of both psychoneuroses and psychoses, this has largely fallen into disuse. Some authors have reported favourable results following the operation, but how far these are referable to suggestion or to the mere lapse of time is uncertain. The present authors conclude that the operation is justifiable where pain or toxæmia exist.

(2) Genito-urinary operations in men may act in the same way though devoid of direct effect. In this connection they state that in psychasthenic patients with stricture of the urethra operation is preferable to prolonged dilatation.

(3) Fixation of movable kidney is strongly advocated in neurasthenic patients, especially when accompanied by pain.

(4) All neuralgic conditions, especially tic douloureux and sciatica, should be treated surgically if medical methods fail. Before resorting to open operation on nerves or removal of the Gasserian ganglion, a

trial should be given to injection of osmic acid, alcohol, or, best, alcohol and stovaine.

The technique of this is described.

(5) Removal of parts of the thyroid should be practised for cases with symptoms of thyroid toxæmia, including psychosis. Cases are cited of improvement in the mental as well as physical condition resulting from operation. Grafting of thyroid for cretinism and myxœdema is discussed, and the opinion expressed that success depends on the use of multiple small grafts.

(6) Fictitious operations, *e.g.*, an incision for the removal of a delusional serpent, are to be discouraged. They are uncertain of effect and should be replaced by other forms of suggestion.

Cranial and intra-cranial operations have been performed for conditions of the following classes :

(1) Psychosis due to head injury : Operation is generally successful when the psychosis has immediately followed the injury. In cases where it develops later, if it be associated with epilepsy, and this due to a removable cause (depressed bone, callus, a cicatrix or traumatic cyst), then mental improvement generally accompanies the cessation of the epilepsy. Where epilepsy does not exist the reported cases are not encouraging.

(2) Psychosis associated with non-traumatic epilepsy : Kocher has practised simple decompression, believing that epileptic crises are accompanied by dilatation of the large arteries of the brain, and a consequent rise of intra-cranial tension, leading to compression of the small arteries and venules.

Bechterew introduced the removal in cases with localised starting-point of the corresponding part of the motor area. Though diminution of fits is frequent, the results in regard to mental state are less encouraging.

(3) Psychoses due to focal lesions of the brain (tumours, abscesses, cysts) : Here the indications for and against operation are precisely the same as in the sane. The authors discuss at length different methods of determining cranio-cerebral relations.

(4) General paralysis : Neither in cases where head injuries played a part in the ætiology, nor where such were absent, has any material improvement resulted.

(5) Microcephaly : Two classes of operation have been practised—linear trephining (in various forms) and the formation of an osteo-cutaneous flap. All these procedures are now obsolete. There is no doubt that the theory (that of premature synostosis) on which they are based is false. In practice no favourable results have accrued, except where a localised intra-cranial lesion was found in addition, and then the improvement has been slight.

(6) Hydrocephalus : Formerly repeated puncture of the ventricles was practised, at first through the orbit or the roof of the nose, later through a trephine opening. It has been replaced by continuous drainage. Drainage externally having been abandoned on account of the danger of sepsis, drainage into the tissues external to the skull has been substituted with or without permanent retention of a tube.

(7) Non-organic psychoses : Attempts have been made to treat such



by isolation or resection of localised areas of the brain having a hypothetical correlation with the symptoms. Of these procedures the authors say it is difficult to understand how anyone furnished with a medical qualification can undertake them.

The operation of lumbar puncture is discussed in detail. A full account is given of its technique and of the unfortunate sequelæ which may ensue, the causes of the latter being fully considered. It has been practised apart from its diagnostic use for the injection of mercury and iodide in syphilitic psychoses and for "lavage." In this proceeding the cerebro-spinal fluid is replaced by physiological serum with a view to the removal of toxins. Results obtained in the laboratory and the clinic of Bechterew are said to suggest a promising future for it. Lastly, the authors consider the duties and rights of the alienist when the friends refuse consent to an operation which he considers advisable.

EDWARD MAPOTHER.

#### 4. Sociology.

*The Causes of Juvenile Delinquency.* [*Die Ursachen der Jugendlichen Verzeahrlosung und Kriminalität*]. (Heidelberger Abhandlungen, Heft 1, 1912.) Gruhle, H. W.

This very careful and detailed study (extending to 450 pages) is the first of a series of investigations into various questions of criminal psychology and statistics. The editors are Lilienthal, Nissl, Schott and Wilmanns. Gruhle's investigation is based on a summer's work in the reformatory of Flehingen in Baden, and he has spent four years in working it up into its present form. The main problem with which he is concerned is the attempt to determine how far youthful delinquency and the minor forms of social insubordination and defect leading to the necessity for reformatory treatment are due to inborn disposition and how far to environment.

The material of the investigation consisted of 105 youths over the age of fourteen fairly representative of the element in the juvenile population of Baden which is too asocial to be dealt with under the conditions of family life. The history of each case is presented in detail in the appendix.

The inmates of Flehingen appear to spring from families of remarkable mobility. Although 94 *per cent.* of the fathers belonged to Baden, 72 *per cent.* were not living in their own birthplace at the date of the son's birth; over 80 *per cent.* of the fathers were born in communities of less than 5,000 inhabitants. We are not, therefore, concerned with the offspring of a city proletariat. There appears to be nothing exceptional in the age of the parents at the sons' birth: the majority of the fathers were between 26 and 35 and of the mothers between 20 and 30. The fathers were to the extent of 70 *per cent.* in fairly regular work, 38 *per cent.* as day labourers. As compared to the general population, the economic independence of the fathers is relatively high. It is noted that 30 *per cent.* of the fathers and 60 *per cent.* of the mothers had never been in conflict with the law, and the offences for which the others had been punished were in most cases slight. Gruhle explains that

this very large proportion of delinquent parents is due to the unusually thorough character of his investigation. If a single offence by the head of the family constitutes a criminal family, it must be said that 72 *per cent.* of these lads belong to criminal families; but it is pointed out that, among the fathers of the 91 legitimate youths in the reformatory, there were only six serious offenders, and no murderer or burglar. Altogether only 8 (or 7.61 *per cent.*) can be said to belong to real criminal families. Drunkenness in at least one of the parents could be traced in 36 cases (34 *per cent.*). In 22 *per cent.* cases, hereditary degeneration through mental abnormality in a parent could be recognised, and by including the alcoholic parentage this percentage is raised to 48. Gruhle remarks that this differs very little from the figures for ancestral abnormality given by Koller and by Diem for so-called normal people. In 34 *per cent.* cases, at least one parent was tuberculous, and only 16 *per cent.* families were quite free from crime, drink, mental abnormality and physical deterioration. In 50 *per cent.* cases there was defect both in paternal and maternal families. Only seven families showed no evidence either of degeneration or of notable injury due to environment. It is added that the children tend to belong to very large families, the average number of children being 6.5 though in many cases children dying in infancy are not included. Gruhle points out the evil results, hygienically and economically, of these large families.

Having dealt with the parentage, the author turns to the boys themselves. The problem of the influence of illegitimacy, which is not entirely unfavourable, is dealt with very fully, the results of many previous investigations being also summarised. At Flehingen there were fourteen illegitimate children; they showed no specially marked degeneration, and they had developed under such various conditions that no single factor could be considered responsible for their social defectiveness. The school education of the inmates of Flehingen was, as might be supposed, below the average (in 51 *per cent.*), and the occupations to which they were put were too various for any significance to be attached to occupation. The asocial impulses had indeed usually begun at an earlier period, as in a tendency to truancy from school and to loafing in streets, etc. Immediately on leaving school, 14 *per cent.* underwent punishment for some delinquency, and a still larger proportion directly after they had acquired the freedom and independence of an occupation.

As regards personal characteristics, it was found that 28 *per cent.* had suffered from nocturnal enuresis, and in 18 *per cent.* it continued beyond the age of sixteen. Gruhle prefaces his inquiry into physical stigmata of degeneration with the remark that he attaches little importance to them. It is therefore all the more notable that he finds multiple abnormalities in every case. The sensory organs were extremely defective. Goitre appeared in as many as 12 *per cent.*—Gruhle is unable to explain why. Disturbances of sleep were found in 24 *per cent.* On the psychic side it is found that 45 *per cent.* may be regarded as healthy and corresponding to the normal average; the remaining 55 *per cent.* are in some respect psychically abnormal, though not necessarily suffering from any definite disease. Definitely insane cases are, of course, not admitted to the reformatory, but there are five epileptic and two epileptoid cases. One inmate had been insane at an earlier period. In

twenty other cases (19 *per cent.*) the intelligence was so very far below the average that they could only be reckoned as imbecile. Altogether 29 *per cent.* could be regarded as pathological in a neuro-psychic aspect. In analysing the nature of the psychic activities of the youths generally, it was found that considerably more than half were of active energetic type, and that nearly all the most intelligent belonged to this type.

The author finally seeks to define the respective influences of environment and inborn disposition. This problem is skilfully and impartially presented, and the subjects are divided into five graded groups from this point of view. The author points out that congenitally abnormal does not necessarily mean asocial. In 18 *per cent.* bad environment is regarded as the sole or chief factor in the causation; half of these cases are abnormal, but their abnormality appears to play little or no causative part. In 59 *per cent.* environment is found to possess predominant or considerable causative influence; in 82 *per cent.* inborn disposition was chiefly or solely responsible; in 46 *per cent.* both factors worked together. Gruhle believes that environment and inborn disposition can each produce a type of criminal which is psychologically equivalent. The sons of drunken fathers are in two-fifths of the cases normal, but in 56 *per cent.* of them the mental development is below the normal. In half the cases of drunkards' sons environment and disposition are regarded as equally causative. A considerable proportion of the children of abnormal parents, also, it is concluded, become delinquent, not through this heredity, but by environment. No single psychological character can be regarded as constituting an asocial individual; it is a combination of highly varied characters. There is not the slightest ground for supposing that the illegitimate possess any special or pathological disposition; the large part they play in delinquency is attributable to the environment in which they are usually placed. Delinquency becomes manifest rather earlier in town children, especially as truancy, loafing, etc. But in stealing as a first offence, and especially in moral offences, the country children come first. The country children generally seem more prone to serious offences.

Gruhle admits that his cases are too few for secure generalisations, and that at many points he is breaking new ground. But he points out that precise and methodic investigation is necessary to permit of comparison with subsequent inquiries, which may confirm or modify his conclusions.

HAVELOCK ELLIS.

*A Pioneer in Criminology: Notes on the Work of James Bruce Thomson, of Perth* (<sup>1</sup>). (*Trans. Perthshire Soc. of Natural Science*, vol. v, Pt. 4, Dec., 1912.) Lyell, J. H.

Six years ago the author dealt with the biological aspects of the criminal, and gave a brief sketch of the school of Lombroso and his followers. He wished now to direct attention to the work of Dr. James Bruce Thomson, who in many ways forestalled the conclusions of his more brilliant contemporary, and whose writings have achieved a Continental fame, and have still an important practical significance.

(<sup>1</sup>) Also given as Presidential Address to Perth Branch British Medical Association, November 11th, 1910.

The rise of a true scientific interest in crime and criminals only dates from about the middle of last century. From time immemorial the criminal had been looked upon merely as an evil-doer, to be punished or put out of existence according to the heinousness of his offence. It was long, however, before the idea occurred to anyone that criminals formed a class of beings by themselves. The systematic investigation of criminality on a large scale was chiefly associated with the epoch-making work of the late Cesare Lombroso, which had for its object the consideration of the criminal in all his organic, biological, and psychological aspects. His idea was that criminality was not merely another name for human wickedness, but that it was rather a symptom of a deep-seated morbid process, having its roots far back in the past history of the race, and demanding attention, not so much from the metaphysical as from the pathological point of view. Lombroso, however, whose great work on the criminal was published in 1876, was not the first to approach the subject in a true scientific spirit. To Dr. James Bruce Thomson, first resident medical officer of the Perth Penitentiary, is due the honour of being one of the earliest to investigate these questions in a systematic and unprejudiced manner.

Dr. Thomson entered upon his duties at Perth in the year 1858. The large Penitentiary formed the general prison for Scotland, with accommodation for over 800 prisoners, and afforded the amplest scope for the observation of criminality. Dr. Thomson held his appointment until 1872, and during that fourteen years he wrote a series of important papers, which may justly be said to have rendered his name famous as one of the founders and pioneers of the science of criminal anthropology.

About the same time we found such men as Dr. Forbes Winslow, Dr. Nicolson and Dr. Maudsley interesting themselves in the study of the criminal; while on the Continent, Lauvergne, Despine and others had taken up the subject. Their writings have none of them attained the classical reputation of the works of Bruce Thomson. The reason for this was to be found in the remarkably clear and emphatic way in which Thomson expressed his views. His name was constantly referred to by present-day authorities, both British and Continental, as one of the first who grasped the fundamental problems of scientific criminology.

Thomson's writings consisted of a series of six papers in the *Edinburgh Medical Journal* for 1860-1861, entitled:

"Statistics of Prisoners, their Mental Condition and Diseases," and another series of four papers in the *Journal of Medical Science* for 1866, 1867, and 1870, entitled:

- (1) "The Effect of the Present System of Prison Discipline on the Body and the Mind."
- (2) "The Criminal Lunatics of Scotland." (Chiefly statistical.)
- (3) "The Hereditary Nature of Crime."
- (4) "The Psychology of Criminals."

The leading impression which Thomson derived from his study of prison life was that there is a criminal class, *sui generis*, constituting a distinct section of the community, with a "singular family likeness or caste," distinguishing it not only from the civil classes, but also from other criminal men. It should be clearly kept in mind that Thomson's

remarks did not apply indiscriminately to the whole crowd of prisoners who came under his observation. He fully recognised the obvious fact, that our cells contained a very heterogeneous assemblage of men and women, many of whom were simply unfortunates, and not deserving the name of criminals at all; while others belonged to the large class of occasional offenders, and in no sense to the criminal classes properly so-called. "The prisoners in Perth Prison," he told us, "amount to about one-third of the whole criminals in Scotland, and belong to the most depraved and abandoned classes. They have been oftener and longer under imprisonment, frequently are of hereditary criminal families—born and bred in crime—their sentences running from nine months upwards to life-long detention." But even amongst these he was able to separate out a certain number who differed from the rest in several important respects.

Thomson's doctrine of the criminal was summarised in the following five propositions:

(1) That there is a *criminal class*, distinct from other civilised and criminal men.

(2) That this criminal class is marked by peculiar physical and mental characteristics.

(3) That the hereditary nature of crime is shown by the family histories of criminals.

(4) That the transformation of other nervous disorders with crime in the criminal class also proves the alliance of hereditary crime with other disorders of the mind—such as epilepsy, dipsomania, insanity, etc.

(5) That the incurable nature of crime in the criminal class goes to prove its hereditary nature.

It might be said that in these remarkable conclusions we have the foundations of the modern science of criminal anthropology. The work of Lombroso and the great Italian and French schools was little more than an elaboration of doctrines almost precisely the same, brought into line with more recent biological theories, and treated according to the more exact ideas of present-day scientific investigation. Lombroso himself repeatedly referred to Thomson's observations, and acknowledged him as one of the masters and pioneers of criminology.

The central doctrine in Lombroso's teaching was, in a word, the existence of what he called the born or instinctive criminal—a person who represents a distinct type of humanity, being atavistic or reversionary to the savage and to primitive man in his biological relations, and exhibiting certain specific bodily and mental characters which distinguish him from his normal fellows and from other criminals. As regards physical characters, they were in the direction of deficiency or degeneration, such as were best seen in irregular development of the bones of the head and face. These, being among the most highly evolved and distinctly human parts of the frame, suffered, as it were, a reduction to a more primitive level, and this was accompanied by a degradation of the higher instincts acquired by long centuries of civilisation, and an emergence of the brute passions of bygone stages of savagery. From the very moment of its enunciation the conception of the instinctive criminal awakened the widest discussion, and the question whether or not there really exists such a human type, in

Lombroso's sense of the term, was still exercising the minds of experts.

He then discussed the main doctrine of what we may in a general sense call the Thomson-Lombroso school, viz. that of the existence of the specific criminal type, and inquiring how far we are justified in accepting it as a rule of belief and practice. It was clearly a question of great practical importance.

In the first place, it was no more absurd to admit the existence of the instinctive criminal than to admit his opposite, viz. the man of instinctively virtuous and honest disposition. We all readily acknowledged that there are innumerable men and women whose high moral character was as much an innate quality as fine physical health or intellectual capacity. On the other hand, we also knew that the world has always contained human beings essentially base, cruel, and wicked, born, as the phrase went, "with a double dose of original sin." The instinctive or born criminal in this sense was no mere figment of the imagination, but a commonplace of history and a familiar figure in the law courts and prison cells of all civilised nations.

The retort might be made that from this point of view the instinctive criminal was nothing more or less than a very bad man, and to try and make a specific type of him was mere scientific pedantry. The fact, however, which Lombroso and his school laid stress upon was that the moral delinquency of the typical criminal was so bound up with a depraved physical nature that he must follow out his evil destiny as by a law of necessity, his character being at the same time stamped upon his lineaments in a manner which could not be mistaken. From the stigmata of criminality, given their occurrence in any person, the conclusion might be drawn that the peculiar moral defects would also be present.

It had been an easy matter to criticise the doctrine of criminal stigmata. We now recognised them as merely the well-known signs of physical degeneration; and it had been proved over and over again that they were also to be found in many persons who exhibit neither marked weakness of mind nor vicious tendencies; and, on the other hand, that some of the most depraved and incorrigible criminals, far from betraying bodily abnormality, were distinguished by their fine physique and prepossessing countenances.

The question therefore resolved itself into an inquiry as to the relation subsisting between criminality and degeneration. Upon the latter subject a vast amount had been written, but unfortunately there was still some confusion of ideas as to what class of phenomena should be specially considered as degenerative in character. In a sense, a number of morbid processes were of the nature of a degeneration of the tissues, and many authorities still used the term for conditions acquired during the lifetime of the individual as the result of stress or toxic invasion. Acquired degeneracy, however, must be carefully distinguished from true degeneracy in the biological sense. The latter consisted in the presence of various deep-seated defects of a congenital or germinal origin, which placed the organism from the very start upon a lower plane of vitality and prevented it from attaining to the full development of the type. It was with reference to congenital degeneracy alone that we could rightly

speak of stigmata, and when these were many or conspicuous there could be no mistake in the matter. But to place undue importance, on the other hand, upon minute morphological changes as an evidence of degeneracy, was to ignore the fact that Nature often admits of large variations within the healthy limits of the type. When we had arrived at an exact definition of normal humanity, it would be easier to estimate what deviations were of a degenerative character.

While this was true, it was an indisputable fact that many criminals showed marked evidences of both congenital and acquired degeneracy. A large number of the true criminal class are weakly and deformed and diseased, stupid and awkward, ugly, or lazy, or shy, and so on. Having had to make a brief physical examination of every prisoner who has entered the Perth Penitentiary during the last seven years—over 16,000 men and women—the author had been struck with the poor condition of many of them. Deformities of all descriptions, the result of accident or disease, tubercular glands and sores, venereal disease in all its disgusting varieties, weaknesses of the heart and lungs, impaired digestion, different forms of malnutrition such as anæmia and alcoholic cachexia, tumours, hernias of the most aggravated degree, disfiguring skin diseases, and so on, marked out this motley crowd as belonging to the dregs and waste products of humanity, and proved the close alliance between gross physical disability and crime. This did not always mean, however, that the two conditions were necessarily related as cause to effect. The simple fact must be remembered that if a man could not earn his living because of some bodily disease or defect, he tended sooner or later to drift into pauperism or crime. The degenerate was an incapable, one of the great army of "the unfit" in the first place, and in many cases only secondarily, and often by mere bad luck, a criminal. When the degenerate happens to be born "with a silver spoon in his mouth," and was well looked after by his friends, he might remain all his life a perfectly innocent, though not necessarily a useful member of society.

The attempt of Lombroso and his school to erect the instinctive criminal into an anthropological type had turned out a failure. The main characteristic of the criminal was his crime. He might or might not be a degenerate, or his criminality might be considered in itself a minor form of psychical degeneracy. But as far as regards specific criminal stigmata, they could not be said to have real scientific value. On the other hand, the conception of the instinctive criminal as a purely psychological type was gaining ground. By freeing it from pre-supposed theories and factitious accretions we acquired a most comprehensive and useful category, into which we could bring a large class of men and women whose native bias to vice and crime was unmistakable. Whether we were to consider such persons, as Lombroso did, to be identical with what were known as "moral imbeciles," was a matter of opinion. We had the authority of Maudsley for the view that moral imbecility was "no mere medical crotchet," but a genuine mental derangement and closely allied to insanity. Those who denied its existence argue that it was impossible for a human being to be altogether devoid of the moral sense. But it might be said that absolute deprivation of either the moral or intellectual powers was not necessarily

implied in the term "imbecile." It is all a matter of degree. The fact that moral imbecility was far less often met with in asylums than in prisons had perhaps contributed not a little to the scepticism with which it was regarded by many authorities.

Viewing the instinctive criminal, therefore, as a being whose moral nature is imperfectly developed, whose intelligence is often deficient, and whose bodily frame is more or less debased, we may, in a general sense, identify him with Thomson's specific criminal class. He thought it was clear that modern criminal anthropology had over-stepped its mark in striving after too accurate scientific methods, and that it was safest to keep to generalities on such an elusive subject as the criminal.

The same might be said with regard to Thomson's third proposition, which dealt with the interesting question of the heredity of crime. It was absurd to imagine that any accurate study of family pedigrees could be made amongst the criminal classes. Many of them never knew their parents, or their brothers and sisters, the criminal classes being no more particular about the marriage law than about any other law of the land. No doubt many interesting genealogical trees were to be found in books on criminology, but they mostly represented exceptional cases, where means had been available by which personal information could be checked. A further difficulty arose from the fact that the development of the criminal instinct largely depended upon social environment and upbringing. Bad surroundings naturally fostered the propensity, while we could not doubt that many potential criminals were saved from themselves by a comfortable home and a sufficient income. Another point was that, owing to the irregular sexual relationships of criminals, and the long periods which they spend in prison, they could not perpetuate themselves to any great extent. Notwithstanding these considerations, there was strong reason for believing that criminals transmitted their evil propensities to their offspring. An interesting light was thrown on the subject by a recent article in the *Eugenics Review*, in which the origin of pauperism and vagabondism was traced to the inter-marriage of undesirables, and the propagation of their defects from generation to generation in accentuated degree. "We believe," said the authors of the article, "that the greater proportion of undesirables would be found connected by a network of relationship, and that pauperism is probably recruited from a few thousand families." The defects which they show were described as "drunkenness, theft, persistent laziness, mental deficiency, or general weakness of character, manifested by want of initiative, or energy, or stamina"—in other words, the well-known characters of the criminal classes. It was, perhaps, premature to accept such statements as proved, in view of the perplexing difficulties—both biological and statistical—with which the subject of heredity had become surrounded. Nevertheless, the idea of the pauper and criminal classes being in a measure self-contained and self-propagative was consistent with many facts which were familiar to the prison official and the administrators of justice. Meanwhile, therefore, we might take these statements as confirmatory of Thomson's third conclusion.

With regard to Thomson's fourth proposition, the phenomenon had been so often observed as to be now beyond dispute. Asylum statistics were full of examples where the rapid extinction of a depraved stock



could be traced through a whole gradation of mental and physical diseases, showing how the germ-plasm in certain cases had become so vitiated that even repeated intermixture with a healthy strain failed to check the morbid tendency. These formed examples where, as Morel pointed out, the process reached such limits that humanity was preserved by its excess.

The incurability of crime in the criminal classes, which was the subject of Thomson's last proposition, forms the natural corollary to the whole study. "The fact," he said, "that time after time the criminal classes lapse into crime, and are rarely improved by any form of prison discipline, shows that crime (in the general) is a moral disease of a chronic and congenital nature, and intractable in the extreme." This conclusion has been confirmed over and over again since Thomson's time.<sup>1</sup> The objection, of course, might be made that the reason for the incurability of crime is that the right methods of correction and repression had not yet been discovered. To imagine that there could ever be a panacea for human depravity in any possible form of prison administration was a vain hope. The prison, to the end of time, must perform the primary function of punishment, and any reformatory element which was introduced must in the nature of things be a mere compromise. This did not, however, by any means exclude every laudable plan which philanthropy could devise for reclaiming the criminal. The incurability of crime was like the incurability of every other disease—it could not be absolutely proved till all attempts had failed to prove the opposite.

Thomson's suggestions were that measures must be taken to break up the caste and community of the criminal classes, long sentences of habitual criminals being necessary in order to lessen the number of offenders, while juveniles must be brought under very early training if we hoped to reclaim them. It was interesting to note that recent measures to a large extent embodied these very principles, but some time must yet elapse before their beneficial effects could be determined.

Thomson also taught that crime was nearly allied to insanity, and more and more we were coming to see that by making criminality a psychological study, we were more likely to arrive at rational conclusions. "There is little doubt," said Thomson, "that if medical testimony were received by judges, especially in regard to old incorrigible offenders, the law would recognise doubtful responsibility and a low state of intellect in many habitual criminals, to such a degree as to affect the sentences awarded." This statement, made forty years ago, might be compared with the general conclusion arrived at by the Société Générale des Prisons of France in 1905<sup>(2)</sup>. After a most elaborate collation of the opinions of innumerable authorities in different countries, it was almost unanimously agreed that "there exists a group of criminals of limited responsibility of which for the most part legislatures take no account; that it is necessary to apply special measures to this category of

(1) "It seems to be generally accepted," says Dr. Quinton in his book on *Crime and Criminals* (1910), "that a person who deliberately adopts crime as his profession, and earns his living by it, is to all intents and purposes a moral incurable, whom the criminal law cannot either reform or deter from crime" (p. 75).

(2) *Archives d'Anthropologie Criminelle*, 1905.

criminals, and while at the same time maintaining the principles of social defence and of intimidation by punishment, to isolate them until at least some notable improvement takes place in their condition."

The value of Thomson's work lay in the fact that he wrote from intimate personal knowledge of his subject, and he grasped in a remarkable way many of the fundamental problems of scientific criminology, and threw an interesting light upon their solution. J. R. LORD.

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### 5. Asylum Reports.

*London County Asylums* (continued from p. 142).—The late receipt of this report made it impossible to consider, in our last number, the most useful digest of the medical statistics, which Mr. Keene offers year by year. He does excellent service in so doing, and takes a good advantage of the information collected by his office. As he points out, there are now available the figures for a period of five years since the Association's new tabulation was adopted. Not only does the extension of gathering time add value to conclusions, but a series of five years enables a comparison to be made with the results of the Lunacy Commissioners inquiry into the results obtained in a similar series for all England. In addition, Mr. Keene has in several instances been able to compare London's more recent work with that of the whole period of its activities. He begins with a comprehensive table showing the broad movements of the last three decennia as well as those recorded since the first asylum was opened in 1831. This forms interesting reading, revealing as it does the changes in the tendencies of insanity. The percentage of recovery of London asylums during the critical period is 30·21; while that for the last ten years is 21·46. Since the admissions of the last ten years constitute nearly one-third of the total, the contrast in the recovery ratios is all the greater between the old days and the present time. The deaths tell the same tale, the percentage on the total under treatment for the full period being 34·68, and 27·36 on those cases during the last decennium. It is therefore not surprising to find that the number of cases of over ten years' standing tends to increase largely. The tendency to recover appears to be greater among the females, but that is discounted to some extent by the greater mortality among the males. As Mr. Keene points out, the number of females is still considerably larger than that of the males, but the disparity is waning. Compared with the sex-proportions of London generally, the residence-total shows considerably more females, but the proportion of admissions by sexes are nearly comparable with the general population statistics. This would appear to be a fact of some importance in the natural history of the disease. Dealing with the state of matters at the end of 1911, Mr. Keene puts it neatly thus: "Stated approximately, London contributed that year rather more than one-seventh of the total recoveries of England and Wales, while possessing one-fifth of the patients under detention, and showing one-sixth of the total direct admissions."

The combined "exits" by recovery and death, when stated in four-

year groups from 1890 show a regular and continuous decline, they being now but two-thirds of the ratio in the first group, namely, 21.26 on the average numbers on the registers then, and but 13.61 now. The chief element of decrease is in the way of recovery, which has dwindled in twenty-one years from 11.06 to 5.32 *per cent.* on the average number on registers, the ratio for the last two years. Nothing could prove more effectually that, as is conjecturable from following tables, the resistance to the effects of mental disease is lessening from gradually increasing degeneracy. Of course, the truth of this, as relating to the total mental defectiveness of London, could not be assured without reference to the admissions into the Metropolitan Asylums Boards' institutions, but the recovery-rates in the latter, exiguous as they are, amply support the conclusion arrived at.

The analysis of the last five years appears to show that the number of first attack cases and of previous attack cases are slowly dwindling, while the number of congenital admissions tends to rise. The number of cases admitted with over twelve months' duration is gradually decreasing, but, as Mr. Keene points out, such figures must depend mostly on the precision with which the signs of oncoming disease are noticed, and are not of much account.

The age table does not supply information of value, including as it does transfers with direct cases; Mr. Keene points out that this inclusion makes a comparison with former years valueless.

The ages in first-attack cases at commencement of the attack (B. 4) are set out for the last five years. These, with the exception of one year (1908), are in declining ratio, being 40.16 in 1911 as against 41.9 in 1907. There has been a substantial decrease in cases occurring under the age of thirty, especially among the females. A little grain of eugenic comfort can be drawn from the latter statement, especially as a comparison with the Metropolitan Asylums' Board figures, as far as it can be made, shows that the shortage has not been admitted to their institutions.

The civil state (B. 4) remains very much the same proportionally year by year.

Regarding the statistics given so far, one cannot help being struck with the fact that, though there is evidence in many directions of a changing tendency, yet the differences between year and year in short series are so minute as to be only just appreciable. There is something to think of and something to guide action, as far as it is possible, in the fact that, in spite of the complicated, numerous, and ever-shifting elements of environment, mental defect marches on in a measured and equal step. With but slight variations from the same walks in life practically about the same number are affected year by year, at about the same age, as many married as single, and, as we shall see, with very much the same mental manifestations. The steadiness of progress tends to hide the actual aetiology, and makes it more difficult to unravel the complication of factors. But it does indicate the great need for systematic study of general measures for drying up the springs of defect. It may be that heredity is the chief spring, but, seeing how many of us are *compos* in these days, it is idle to put the chief blame on heredity. The occupation table (B. 6) will no doubt in time afford considerable

information, but, as Mr. Keene points out, value can only be obtained from an extended aggregation of such returns. As noted in former years, clerks and typists, of both sexes, appear to form a disproportional part of the admissions.

In Table B. 5 the forms of mental disease show that those associated with physical factors tend to keep about the same proportion. Insanity with epilepsy and general paralysis stands much the same from year to year. But with regard to the more purely mental affections there is some appearance of acute insanity receding, while the degenerative classes increase.

Non-systematised delusional insanity has a larger incidence. Among the factors (B. 7) the principal matters to note are the gradually declining importance of alcohol, though, in its heredity aspect, there is no such decrease. On the contrary, it seems to have heavier incidence among the first-attack cases. Privation and starvation, together with injuries, are not assigned so frequently. Among the "recovery" statistics the most interesting table is that dealing with the ætiology.

Mr. Keene gives a table showing the proportion of total recoveries attained in the varying causation. Mental stress, alcohol, and insane heredity are far and away the highest of all. One or other was assigned as principal or contributory in over 90 *per cent.* of the recoveries. The two former supply fewer recoveries, but whether this is due to fewer coming under treatment, or fewer responding to treatment, cannot be known. The same may be said regarding insane heredity, which, however, has better fortune. We still think that this return could be made much more valuable if the number of cases admitted with the particular assignment of factors could be given, and the proportions of recovery struck on them, and not on the total recoveries. We acknowledge, of course, that such a comparison is open to the objection that the same persons are not dealt with in the admissions and in the recoveries. But seeing how few recover after five years in any form, the error would be almost inappreciable. Anyhow, we venture to suggest to an enterprising medical officer that he, with his knowledge of the actual persons from beginning to end of their course, could make a very valuable study of the question of the comparative recoveries from insanity assigned to various factors. We really do want such information, for the knowledge now possessed is but crude, and often erroneous. How often do we hear that such a person is a hopeless case because his people are so insane. Yet figures in the main point to the fact that insane heredity is one of the slightest bars to recovery from a given attack.

In dealing with the deaths, Mr. Keene gives some interesting figures comparing the incidence of tuberculosis as a cause in each of the London County asylums. These are stated, both when tuberculosis was returned as a principal cause and when it was returned as merely contributory. The former are stated, in the case of each asylum, for five years, ending 1911, while in another table the latter is given for 1911 only. Certainly there are striking differences in the incidence, but we cannot go as far as he does in suspecting the personal equation of the certifier. There is some room, of course, for doubt as to the disease being a principal cause, but the room for doubt is but small.

We should not be inclined to pay much attention to the contributory instances. He cannot assign any reason for the variation in incidence between the various asylums, though he points out that to Claybury and Colney Hatch the majority of the patients from the east end of London are sent—to the latter the alien Jews. As noted before, we think that the question of soil and site may have a considerable influence in the incidence of tuberculosis.

He shows, by a special table derived from D. 2 and D. 3, that in the course of the five years 18·68 *per cent.* of the total deaths occurred at over sixty years of age, and 15·82 were over seventy years of age; 10·89 of the deaths occurred after twenty years of residence.

Among the residue (E. tables), of the 20,118 patients on the register at the end of 1911 no less than 4,694 were over sixty, and of these, 1,513 were over seventy; while of the same number, 4,308 and 714 had resided for over twenty years and forty years respectively. Except in the last case, the females preponderated over the males.

We cannot conclude this sketch of Mr. Keene's work without renewing an expression of deep appreciation of his labours and the spirit which directs him. In conjunction with the similar work of the Lunacy Commissioners much valuable information and critical inquiry is being made available for future use. Mr. Keene's own statistics serve to set off the others, in so far that they relate to a purely urban area, thus helping to comparative consideration of the insanity in other classes of gathering ground.

*Metropolitan Asylums Board.*—Very considerable changes in the method of dealing with the imbecile children are in progress. The Board apparently is not to be stayed in its beneficent work by the imminent passing of the Mental Deficiency Bill. It seems determined to leave its system in the best possible condition should it be deprived of continuing the duty which it has so conscientiously carried out hitherto. A strong committee was appointed to consider the question as a whole. The result is that Darenth is being made entirely into an industrial colony, all unimprovables being removed elsewhere. Hitherto the administration of Darenth has been clogged by the presence of 1,000 useless imbeciles, who, instead of contributing to the general welfare, demanded an excessive amount of care and nursing. The transformation is being carried out, and the Association has recently had the opportunity of seeing for itself what can be done with a very unhappy class, if only skilled determination is brought to bear. We take this opportunity of congratulating Dr. Rotherham very heartily on the great things which he has done at Darenth, the inspection thereof forming a prominent part of a happy and instructive day. A material part of the new scheme is the transfer of the feeble-minded children, formerly under the care of the Children's Committee, to that of the Asylums Committee, thus bringing all grades of mentally defective under the control of one committee.

"The second prominent feature in the work of the Board during the year 1911 was the adoption of a complete scheme for the systematic classification and treatment of the whole of the mentally defective persons, of whatever grade, for whose care they are responsible. The Board have been charged from their forma-

tion with the duty of providing accommodation for such harmless persons 'of the chronic or imbecile class as could be lawfully detained in a workhouse,' and the control of the asylums for these cases has hitherto been the duty of the Asylums Committee of the Board. Since 1897, by an order of the Local Government Board, the Board have also been entrusted with the care of 'children who, by reason of defect of intellect, . . . cannot be trained in association with children in ordinary schools' (but who have not been certified as imbeciles). These cases, with other classes of children, have been provided for in homes under the control of the Children's Committee. The reports made by that Committee to the Board from time to time, as the result of their experience, have prepared the way for the recognition of the facts that, as a general rule, these feeble-minded persons can never be sufficiently improved, by the most careful training, to take a place in the outside world, and that the community must undertake the burden of their permanent care, and, further, that there has been much overlapping between the cases classed as imbeciles and the feeble-minded, by what has often been the accidental circumstance of certification. The strongest evidence on this point is that of the Medical Superintendent of Darenth (Dr. Rotherham), who has also, in the last few years, been responsible for the mental side of the work of the Bridge Industrial Home for the feeble-minded. Dr. Rotherham has no doubt that there have been at Darenth numbers of inmates classed as improvable imbeciles quite up to the standard of the feeble-minded at Bridge Industrial Home, and some even beyond the standard of a large number at that Home."

The record of the work done by the patients at Darenth is still most satisfactory, a balance of over £2,400 standing to credit after paying the cost of material and the wages of the teaching staff. The same success attends the Bridge School, which is also under the direct control of Dr. Rotherham. This is beginning also to show an appreciable profit on the same basis. The amount of money made, though not to be despised, is by no means the measure of the good that is done by the labour undertaken. The industry and cheery orderliness of the workers made a deep impression on all the members of the Association who travelled to Darenth in February, and must have been a revelation to many who had not been there before. We note that the Committee in their main report, and Dr. Rotherham in his report, quote passages from the report of the Medical Inspection of School-children Committee.

*Cardiff City.*—A striking feature in the statistics of the year's working is that, although the total number of patients under treatment was the largest since the opening of the asylum four years ago, and although the daily average resident was also greater than in any preceding year, the number of patients left on December 31st was well below the average of the four years. This is due mostly to a phenomenal recovery-rate, which reads: Percentage of recoveries in the direct admissions—males, 45·71; females, 82·60; total, 60·34. In addition, two males and two females were discharged as not insane. With regard to the recovery-rate, Dr. Goodall very sensibly writes, "Such abnormally high rates in institutions compelled to receive all cases, favourable for recovery or otherwise (including many hopeless), are due mainly to some unusually favourable circumstances, or combination of circumstances, not under control, and only to a lesser extent, in the present state of knowledge, to treatment."

He hopes some day that we shall learn how to arrest the development of cases of adolescent dementia. If such cases were sent out relieved in large number something appreciable would be done to obviate the

accumulation of demented patients in these institutions. But would not such a wholesale discharge lead inevitably to the production of a still worse class of mind? He gives some concrete figures showing the economic soundness of the policy which fosters and hastens recovery, in spite of the expense of providing the most efficient treatment. He makes a calculation, which may be of service to those who aim at the highest possible scientific work done in their institutions. He calculates that when his research work is completely organised (we can guess at *his* standard) it will mean an addition of 5½*d.* per head to the cost.

The record by Dr. Goodall of the scientific work done at Cardiff by Drs. Schomberg, Stanford, Harvey Baid and Barton White is striking, and we must refer the reader to the report itself for a full account of it. But we make the following extracts. Dr. Schomberg :

"The patients admitted suffering from general paralysis have been examined with reference to the qualitative and quantitative changes present in the structural elements of the peripheral blood. So far the result of these observations is to show that cases in remission have a well-marked qualitative change, termed a lymphocytosis, which disappears when there is a fresh onset of symptoms. It remains now to establish the degree of constancy of this change, which, if proved, will be of material assistance in giving a favourable or unfavourable prognosis in any given case. The cases of general paralysis have also been examined (by Dr. Barton White) when active symptoms are present, for the presence of micro-organisms in the circulation. Eleven such were investigated, and in all the blood was shown to be sterile."

#### Dr. Stanford :

"The new methods of estimating indigotin and indirubin are colorimetric, and their elaboration led naturally to an examination of the principles of colorimetry and of the colorimeters chiefly in use, with the result that notable inaccuracies were discovered in the latter. A new colorimeter, free from these errors, was devised, and has been employed, not only for the above methods, but also for other colorimetric work. Occupation with this subject has also given occasion for the scrutiny of some colorimetric methods which are in common use for physiological purposes. Among these is Folin's method for the estimation of creatinin, concerning which some results will be ready for publication shortly."

#### Dr. Barton White :

"*Bacteriological examination of blood in general paralysis.*—In view of what has been stated with regard to micro-organisms circulating in the peripheral blood in general paralytics, I have examined eleven cases which at the time were showing marked symptoms of the disease. Blood was withdrawn under strictly aseptic conditions from the median basilic vein, and transferred to Pasteur flasks of broth, and to the surface of nasgar agar. After incubation for forty-eight hours at 37° C. the cultures were perfectly sterile.

"*Acute ulcerative colitis.*—With regard to the bacterial examination by Dr. Schölberg and myself of mucus from the intestine in cases of ulcerative colitis, all the organisms normally inhabiting the colon were present, but the dysentery bacillus was not found. As regards the treatment of the cases, the best results were obtained when enemata of silver nitrate : 30 gr. to three pints of warm water, were given at the onset, followed by another twice the above strength on the second day. In these cases the symptoms ceased almost at once, and in all cases the patients were convalescent in from five to seven days."

Dr. Goodall himself contributes some observations made by him in his Presidential Address at Birmingham in 1911 :

"The outstanding pathological fact which indicates a toxic pathogenesis for some of the psychoses is leucocytosis. The condition is found very commonly in

acute and recent mental disorder, and in states of exacerbation during chronic insanity. I believe the following statements are justified by much personal study of this question for the past three years, and by the work of other investigators. The total leucocyte count is increased in varying amounts from 10 to 30,000 per c.mm. in acute and recent mania and melancholia (senility excluded), and in the periodic exacerbations of chronic cases of the same. Should the count fall in the course of the disease it rises again to rather above normal towards the close of the attack in cases which recover, and remains fairly high on recovery. In acute mania and melancholia the percentage-proportion of the neutrophile cells is increased in the early phases of the disease, also towards the close of the attack when recovery is to take place. In these disorders a low total count, and a fall in the normal percentage of neutrophiles, if maintained, are of bad augury, and point to the onset of dementia. As regards dementia præcox, in the active phase there is some, but no considerable increase in the total number of leucocytes; neutrophiles are diminished, and lymphocytes, mononuclears, and eosinophiles increased. Cases of systematised delusional insanity do not exhibit leucocytosis.

"As a generalisation; in the acute and recent mental disorders there is leucocytosis with percentage increase of the polynuclear cells; in the subacute and chronic ones there is little or none, and the proportion of large mononuclears and lymphocytes is increased.

"In acute mental disorders absence of leucocytosis and a fall in the percentage-proportion of polymorphs goes with deficient reaction, and is an unfavourable indication, as is the case in those infectious fevers in which leucocytosis is observed. This, from the standpoint of toxæmia, is significant.

"In regard to paralytic dementia; in the first period, while still the patient is well-nourished and active, there is leucocytosis with proportional increase of neutrophiles; in the succeeding periods lymphocytes and mononuclears are increased at their expense, but it is to be noted that, even in these, exacerbations are accompanied by a rise in the neutrophile count. In eight cases of well-marked remission, recently and repeatedly examined by me, the lymphocytes, transitional cells and mononuclears (especially in the last two varieties) were notably increased at the expense of neutrophiles. (Incidentally three showed eosinophilia.) My friend, Dr. Schölberg, pathologist, of Cardiff, reminds me that in protozoal maladies (sleeping-sickness, syphilis, malaria) the reaction of the white cells towards infection is by lymphocytosis, not leucocytosis. If further experience shows that there is the same reaction in general paralysis, a point of great significance will have been made out. The Wassermann test shows that in general paralysis we have a disease which is syphilitic *au fond*; its essential cause becomes, I think, again operative under privation and stress; further evidence of this may be found in the mode of reaction of the white cells (lymphocytosis). We should then look upon the polymorphonuclear increase as merely a reaction to a secondary infection, such as would cause acute phases and exacerbations in the malady. If this line of reasoning proves correct, an explanation would be available for the favourable results reported by von Wagner and Pilez, of Vienna, who prolong remissions, and ameliorate the disease, by injections of tuberculin; for by this lymphocytosis is promoted. There is no mention of the state of the white-cell count in the papers by Pilez which I have consulted."

We venture to take a subdued and respectful exception to the substitution of the term "paralytic dementia" for general paralysis of the insane in the foregoing and in other parts of his report. Putting aside the fact that this is a departure from the authorised terminology adopted by the Association, we submit that it has disadvantages, while it secures no appreciable advantage. It cannot be expected that we shall ever have any name for the disease which will lead the mind to the comprehensive recognition of the components of its pathology; we must rest content with conventionality. General paralysis of the insane is such a conventional term, which has the advantage of never being misunderstood. Paralytic dementia does run the chance of being misunderstood,



since there are conditions, not uncommon, to which the term can be applied, and to which it is very often applied. On reference to *Tuke's Dictionary*, we find much the same objection taken to the disease being termed "paralytic insanity"; no doubt the objection would be still stronger to the more restricted mental base. After all, *cui bono?*

This year, again, we mildly protest against being tumbled from a state of interested pleasure, arising from the study of first-rate science, into banal domesticity; from the count of leucocytes and polymorpho-nuclears into counts of gas, units and bunches of thyme. Quite a cold bath at an inappropriate time. Should not the really medical report be cut right away from worldly affairs—Mary from Martha? Dr. Goodall might create a good precedent by thus boldly dividing his information into separate reports—the medical and the superintendent's. There is one good reason for this. He himself laments that the ordinary assistant medical officer has the time for gratifying his scientific instincts overlaid by routine of a purely clerical nature. How can he, the *fons et origo* of successful research, support his demand for more purely medical assistants, if it is open to the critic to say that he himself is so successful in teaching and practising science, and at the same time shows such a good result from his superintendency of the cows and hens? This is no mere querulousness, but the expression of a hope that such work as he reports from his laboratory shall not be belittled by intimate admixture with things of the earth, earthy.

*Dorset County.*—Dr. MacDonald reports that the excited cases continue to exceed the depressed cases by a large proportion, the ratios to the admissions for the past year being 54 and 11 *per cent.* respectively. He has found during the year that the better hopes of recovery from the former have not been fulfilled, especially among the females. He has provided basins, at the rate of one for each four patients, in practically all the dormitories, thus obviating the use of the lavatories for the purpose of ablution. He finds the change popular and satisfactory in working. The private element is now quite an important part of the asylum population. It actually contributes a good sum in excess of that paid for the public patients. Perhaps some day he might give some points of comparison between the two classes, such as the relative readiness to resort to the aid of the asylum. Other points such as heredity, the abuse of alcohol, etc., might afford useful study.

*Glamorgan County.*—This area appears to have lost its reputation for general paralysis, which used to make such inroads on the health of its population, after the disease had once commenced to attack the Celtic inhabitants. Now it furnishes a bare 5 *per cent.* of the admissions, two only being females. It is possible to suppose that the opening of other asylums near has relieved this asylum from some of its sea-faring constituents. The discovery of only four cases among 352 admissions, having positive evidence of syphilis would seem to support such an idea. Heredity of insanity was found in about 22 *per cent.* of the direct admissions, and alcohol was assigned in 20 *per cent.* Upwards of two-thirds of the alcohol cases were first attacks. Nearly 5 *per cent.* of the total and a proportion of 11 *per cent.* of the females were puerperal cases. Of the fourteen cases in which the puerperal state was the principal factor, four had insane heredity, one had alcoholism, and one

epilepsy as contributory causes. It is curious to read in these days that thirty-eight patients belonging to one union had to be discharged and readmitted because they had not been seen by the justice who signed the admission orders.

*Kent County, Barming Heath.*—Speaking of the inconvenience that often arises from the discharge of recurrent cases, Dr. Wolsely-Lewis puts the matter well and tersely.

"61·9 per cent. of the recoveries took place within a year from the commencement of the attack. In 56·3 per cent. the form of disease from which recovery resulted was recent melancholia or recent mania. 48·5 per cent. of those discharged had a neuropathic family history. 76·5 per cent. of the women discharged were within the child-bearing period of life. 22·5 per cent. of those discharged suffered from recurrent insanity. The difficulty of dealing with these cases is a very real one; when mentally well it is illegal and seems unjust to keep the bread-winner of the family in an asylum or the mother from her home; on the other hand, a wife who has a husband subject to attacks of recurrent insanity, with intervals of mental health, is obliged when the attacks are coming on and before the law can intervene to endure the misery of living with him as his wife, of seeing daily the evil influence he exercises on the home, and of watching his reason tottering to its fall—perhaps in constant dread for the safety of her children and herself; or, again, a husband whose wife suffers from recurrent attacks—finds his home and children neglected while he is away at work, well knowing from past experience what harm can be done before his wife again becomes certifiable."

*Lancashire, Prestwich.*—An extensive epidemic of typhoid fever marked the year's working of this asylum. Thirty cases in all occurred, and these were entirely confined to the main asylum. We append some remarks of Dr. Percival, who had the good fortune to obtain the aid of the county medical officer, an officer of much experience in such epidemics.

"Apart from the typhoid outbreak, the general health of the community has been good. This outbreak commenced on January 1st and ended on March 16th, thirty cases occurring during that period. These were confined entirely to the main asylum, none occurring at the annexe. Elaborate precautions were taken to prevent the spread of the disease. All the cases as diagnosed were isolated, their motions were burnt, their urine mixed with disinfectants and allowed to stand for some hours before being poured down the drains. All the linen, clothing, bedding, etc., of these patients were marked with their names and taken to the Foul Linen Laundry in a special skip, treated separately from all other washing and disinfected by people specially instructed. They were returned to the same patients. The staff of attendants dealing with these cases had special instructions regarding their hands, etc.

"With a view to the early detection of cases, the temperature of all the patients in the main building was taken at least once daily. Any case with rise of temperature, headache, or malaise was examined, and if considered suspicious was isolated pending confirmation of the diagnosis. The motions, etc., and clothing of these suspects were treated as above noted. The staff was also under observation as regards temperature, etc. All closets were thoroughly scrubbed out with disinfecting fluids.

"We were unable to discover the cause, although fortunate enough to have the assistance of Dr. Sergeant, the County Medical Officer of Health, whose experience and knowledge of these matters is, of course, immense. However, there is nothing very unusual in this, for, except in those cases due to water or milk (both eliminated in our case), it is the exception for the cause to be traced. Generally, of course, it is easy to state confidently enough a likely cause, although not susceptible of proof."

Dr. Sergeant's report was as follows :

"The County Medical Officer of Health reports that on January 30th, 1912, in compliance with a communication received from Dr. Percival, dated January 25th, he visited the County Asylum at Prestwich, with respect to an outbreak of typhoid fever, a subsequent visit taking place on the 19th of February. The cases and deaths which occurred are given in the appended Table A. Of thirty cases which came under notice, seven died. The first seven (six males and one female) were attacked from the 1st to the 4th of January—six of these were notified as suffering from enteric fever on the 11th and 12th, and the other on the 21st. The subsequent cases broke out at varying intervals to the 16th March, when the last case occurred. The disease was confined to the old portion of the asylum, and of the total attacks four were among women—two in No. 6 ward and two in No. 2 ward; these occurred in the early days of the outbreak. In certain cases, including the infirmary attendant attacked January 30th, the two infirmary ward cleaners, and possibly other cases, infection was obtained from the typhoid patients undergoing treatment, and it is difficult to say when the primary source of infection ceased to act. The wards most seriously affected were Nos. 2 and 3, and three of the earliest cases were men engaged in barrow and spade work.

"The suddenness and extent of the outbreak suggested a general cause, such as contaminated milk, impure water, food infected by a 'carrier' case, or by rats which may have been disturbed during drainage operations.

"The first two possibilities Dr. Percival was able to dismiss, as a result of a special investigation he initiated. One of the asylum patients (W. H—) who had suffered from two attacks of enteric fever, the first during March, 1909, and the second in January, 1910, was found to be a possible typhoid carrier. He had been sent to No. 6 male ward on October 27th, 1911, and put to work in the closet gang. There is no mention, however, of his having had to deal with the food. The 'rat' theory<sup>(1)</sup>, cannot be altogether dismissed, as it is known that the old kitchen, in which the food was cooked, is frequented by these rodents, and during some recent drainage operations it is possible that a colony of the disturbed animals may have invaded the kitchen and contaminated the food. A further source of disease he attributes to the earth-closet system, now in use in the old part of the Asylum. This system has become obsolete, and ought to be discarded with the least possible delay and water carriage substituted, and, at the same time, the existing lavatory arrangements might be made up to date. The presence so near the wards of excreta liable to be infected at any time from the possible admission of patients who may also prove to be typhoid carriers is a danger which ought to be abolished, nor should patients acting as barrow-men be allowed to remove and dispose of such excreta.

"I may say that the precautionary measures for staying the spread of the disease, as described by Dr. Percival, seemed to be sufficient, and as far as could be observed were carefully carried out, but it must be remembered that the state of the patients treated in the Asylum adds much to the difficulties usually encountered in sanitary administration, and it follows that obviously insanitary conditions should not be allowed to continue."

He laments having had to deal during the year with ten criminal lunatics, some of them habitual criminals. A valuable discussion was started by him at the February meeting on this matter. A good deal more will probably be heard of it in the immediate future.

*Northumberland*—This county, after a respite from building for many years, has now to undertake enlargement. As to the nature of such additions, Dr. MacDowall supplied his committee with a full report, and in accordance therewith it is to take the shape of new detached buildings to accommodate the sick, infirm and recent cases. This seems to be far better than to attempt to remodel existing buildings. It gives the opportunity of providing the most improved and up-to-date accommodation for just those who require the greatest amount of care and nursing. Dr. MacDowall supplies a large scale

<sup>(1)</sup> This cause of infection is being subjected to investigation at Professor Delepine's bacteriological laboratory.

map of his area, divided into unions. Against each is given the number of general population and the number of the asylum patients coming from each area, and the *ratios* arising therefrom for each decennium starting with 1861. We commend the idea to other superintendents. This information is an essential to any systematic inquiry into the relative local incidence of insanity, which inquiry itself is an essential to forming any general conclusions as to the natural history of the disease. Why should one area have fewer insane than its neighbour? There must be some answer to the question. Doubtless some influence in increasing or decreasing local *ratios* must be exercised by shifting of boundaries and so forth, but beyond that it is reasonable to think that there are questions of social and racial factors, with environment. As he says, to deal adequately with these questions would demand an expert to devote himself to the task, if any useful results were to be obtained. We have always taken the view that the Association might well take this matter in hand and provide some financial inducement to such an expert. Bacterial inquiry and estimation of indigotin are, after all, not the only things needful to discovery of that which we all want to know.

*West Riding, Wakefield.*—Dr. Bolton draws from his statistics certain convincing conclusions, which tend to increase the gloom that many experience in studying the prospects of sanity of the nation in years to come. He points out that out of 468 admissions, no less than 118 are relapsed patients, most of whom have had since their first attack the opportunity of propagation. Of the 431 direct admissions a minimum of 149 had a hereditary history of psychopathy, neuropathy, or alcoholism; a minimum of 58 had a personal history of mental instability; a minimum of 66 had a personal history of intemperance. Of the recoveries, which numbered 166, 71 had suffered before, thus making a great addition to the dangerously undesirable propagators, while the balance represented so many new additions to those possible parents who have suffered from disability. All the single-attack men and 34 out of the 48 single-attack women were of breeding age. Further, of the 166 recoveries, 69 had a history of psychopathy, neuropathy, and alcoholism; 30 had personal histories of mental instability and 29 of alcoholism. He adds—"A large proportion of the recoveries thus constitute as grave a menace to the community as did the previously insane admissions before their advent to the asylum, and to these recoveries I might add the considerable number of cases who have been discharged to the care of their friends." He points out that the method to be adopted for meeting this terrible menace is in the province of the social reformer. To us falls the more humble duty of saving as large a proportion of the brain power as the methods of treatment at our disposal will permit. The foregoing figures and remarks are extracted from the report of 1910.

In his later report Dr. Bolton announces the engagement, as a whole-time pathologist, of a bacteriologist of repute, who has charge of all the *post-mortem* examinations. The out-patients department appears to thrive remarkably well; 90 new cases came for advice. During a large part of the summer over 1,000 patients left the wards after breakfast, only returning to go to bed. We note some remarks on colitis. Dr.

Bolton considers this to be endemic in Wakefield Asylum. He certainly has had a remarkable series of grave cases, no less than 18 out of 35 affected succumbing to it. He finds the magnesia system not so efficacious as stated, and is inclined to disbelieve in it. Nevertheless, upon looking back on our remarks on previous reports, we find indisputable evidence of the disease dwindling and finally disappearing under the treatment, which has become so associated with the name of the asylum. The progressive improvement and the beneficial results noted were too conspicuous to have allowed of any suggestion that the success was due to accident, *post hoc* and not *propter hoc*, which conclusion is strengthened by the standing of the recorder of those results. After all, colitis is colitis, and both it and deaths from it are facts that cannot be discounted or lost to sight. The absence of either cannot be accounted for by the imperfection of bacterial investigation.

*Some Registered English Hospitals.*

*The Retreat, York.*—Dr. Bedford Pierce puts an old question so well that we think it right to give some extracts from his remarks on it. These are anent the running of risks for the benefit of the patient.

"The physician has to decide the amount of liberty to be allowed to each individual patient, and sometimes the course of action which is absolutely safe is not that most likely to promote recovery. When the patient is profoundly depressed there is little difficulty, but in doubtful cases it may easily happen that the prospects of recovery will be hindered if strict measures to ensure safety are prescribed. There are also wider issues to consider. It would be a retrograde movement to take away the sense of freedom, or to reduce the facilities given to follow ordinary occupations and amusements.

"Although the problem under consideration is not the risk of injury to others, but the protection of patients against themselves, it is essentially of the same nature, and it is possible in our own day to cause great suffering to patients by paying undue attention to the question of safety. We shall always have under care uncertain and doubtful persons. Many of these recover under judicious treatment, and practically all of them are very sensitive as to their surroundings.

"A perplexing dilemma, therefore, continually confronts those who are engaged in the treatment of mental disorders. It affects all our dispositions, from the structure of premises to the smallest details of daily life. In spite of our limitations and the impossibility of foreseeing what may happen, the choice must be made. One road is the comparatively easy path of safety, involving few risks: a path bounded by walls and fences, wearisome but secure. The other road is less defined: it leads to the open country. Many of those who tread it at once respond, and show that liberty is justified, even though unfortunately, now and then, one may wander and be lost."

Two female cases were discharged recovered, having been mentally affected for seven and a half and eleven and a half years respectively.

*Barnwood Hospital.*—In dealing with the statistics of this institution, Dr. Soutar says that, in his experience, there is no reason to believe that there is an increase of "occurring" insanity as regards private patients. With exceptions, the same would probably be said by most who have to deal with institutions for the private class. The reason obviously for any apparent absence of increase is the gradual withdrawal, in increasing numbers, of patients from institution treatment, in favour of aggregated or individual residence in private houses. The daily papers not infre-

quently supply occasion for doubt whether this latter form of treatment is always in the best interests of the patient, whatever may be the interest of others. The dangers attending unrecognised detention will surely be minimised by the proposed legislation for temporary treatment of incipient insanity without formal certification in private houses. When this is passed, there will be less temptation to take steps which now tend to hide up matters which should be officially known to someone, if risks, which have been held great enough to demand a rigorous lunacy law, are to be avoided.

He also makes some remarks of importance about the classes of melancholia. May we substitute the term "melancholy"? It comprises those who suffer from the least serious and most curable of all departures from mental health; those who are overwhelmed by mental pain and terrifying delusions which will only be calmed by the advent of dementia; and yet others whose melancholia is but the early stage of types of illness which bear the brand of chronicity. The differentiation of the last from the former is most uncertain, and yet most important, not only for treatment but also for prognosis. We may hope at least that the strenuous bacteriological study now carried on will eventually devise some test for this differentiation. Close clinical watching for the known signs of true melancholia goes some way, but is not seldom unsuccessful.

*Holloway Sanatorium.*—This report contains considerable information about the new Branch at Canford Cliff, Bournemouth. It appears to be a well-designed, comfortable house, which no doubt will be a most useful adjunct to its parent. The recovery-rate maintains its high figure, the female cases yielding a far greater proportion than the males. No doubt the incidence of general paralysis, to which we shall advert, accounts for this. The death-rate is very low—3·76—the males here also being at a great disadvantage in comparison with the females. The number of not-first attack admissions is very high—31 out of a total of 82. General paralysis supplies some remarkable figures. Ten out of the 45 male admissions were of this form; no females suffered from it. The deaths of paralytics were two only, among the males; while, as to the residue, 17 remain out of the 152 males resident.

Comparative statistics for *males* only are:

	Admissions.	Deaths.	Residue (Dec. 31st).
Commissioners' Report for			
England and Wales .	1166 (1)	1360	—
London County Council .	285	275	348
Holloway Sanatorium .	10	2	17

These ratios amply confirm the generally received proposition that the expectation of life in a general paralytic is greater in private care. Two reasons can be suggested for this. Firstly, the life is prolonged to a certain extent by the greater repose obtainable in private care, than is obtainable in a bustling place like a county asylum. We have always held the opinion that the life of a general paralytic may, under average

(1) This number is that shown as the average of four years to 1910, the other figures being those for 1911 only.

circumstances, be regarded like gas in a gas-holder. It can be burned up slowly or fast as external excitements may dictate. Secondly, that among the upper classes some ameliorating influence is brought to bear in the early stages on the most rapidly deteriorating pathological elements by treatment, such as private patients are able to command. The question of nursing and treatment of the developed disease does not of course enter into the question, since it is now of the best under all conditions.

### *Scottish District Asylums.*

*Ayr.*—Increase in occurring insanity evidently is not an existing fact in this district. Dr. McRae writes :

"With regard to the vexed question of the alleged increase of insanity, the following figures may serve to support the views of those who believe that no increase exists:—

	From 1881 to 1891.	1891 to 1901.	1901 to 1911.
Men (a) . . .	+ 3'9 . . .	+ 12'9 . . .	+ 4 . . .
(b) . . .	+ 19'6 . . .	+ 36 . . .	- 4'4 . . .
Women (a) . . .	+ 4'2 . . .	+ 12'1 . . .	+ 6'9 . . .
(b) . . .	+ 1'7 . . .	+ 24'1 . . .	- 8'3 . . .

"(a) Difference *per cent.* of general population of the county in decennial periods.

"(b) Difference *per cent.* of the mean admission rate in decennial periods.

"Such a table may serve to illustrate at a glance that the occurring insanity in relation to the numbers of the general population is not even relatively increasing, but actually decreasing. When we consider again some of the types of cases sent to asylums in more recent years, it is to realise that the available accommodation is to a decided extent taken up by individuals who formerly were allowed to roam unattended because considered harmless and comparatively inoffensive, while the aged and broken-down are much more readily placed under institutional care than in the days when such were regarded as more or less a legitimate domestic burden, whose care was a pious duty. The 'village idiot,' or the 'senile dotard,' indeed, every kind of mental cripple, is deemed an incubus at home and the proper subject for asylum care nowadays. There is little evidence among many of such cases to show that poverty in itself is the cause of the relatives' inability to keep them at home. It is rather that in the keener competition in wage-earning, combined with the modern taste for excitement and amusement, less time can be spent in attending to the afflicted member of the family. Cases, again, are often sent to the asylum because the relative who acted as guardian has died, or is going to be married, or has gone abroad.

"It is highly probable that the greatly improved hygienic conditions of modern civilisation, combined with the relatively smaller amount of alcoholism among women, are the most important factors in their decreasing liability to certifiable insanity."

Dr. McRae, in adverting to the potency of alcohol as a factor, expresses a confident opinion that, if efficient means could be devised for its restriction, there would be a great reduction in asylum care. He points to the comparison between the sexes as supporting this proposition. Certainly the females are admitted in considerably fewer numbers, both in comparison with the men and also with themselves in former years, while those "remaining" on December 31st is a decreasing quantity both absolutely and comparatively. As to the causation by alcohol, in a total of sixty-one alcoholic cases, only nine represent

females, of which six showed alcohol as an exciting cause. The proportions of total causation, whether as principle or otherwise, is for men 52 *per cent.*, for women 13 *per cent.* The English figures are—for men 21 *per cent.*, for women 8 *per cent.*

*Glasgow District: Gartloch.*—No report that we know better illustrates the malignity of alcoholic heredity than Dr. Parker's. Year by year he keeps up a table showing its baneful effects. From this we learn that last year, of the admissions, 51 *per cent.* had such a history. On further analysis, it was found that of those not over twenty-six years of age it existed in nearly 79 *per cent.*, while of those over twenty-six years the similar proportion was but 33·33 *per cent.* Side by side with these figures, we place the occurrence of alcohol as predisposing or exciting cause, which is given as 48 out of 307 total admissions. This point needs to be rubbed in without ceasing. We may dispute in single cases or in all cases whether the alcohol taken was causal or symptomatic, but there is no room for any such doubt about the heredity, which after all is the minimum, since many of the friends either will not divulge or do not know the exact truth. If the public could be forced to recognise that alcohol, though it is a serious and dangerous factor in the development of insanity, is far more deteriorating to a subsequent generation, there would be less resistance to doing away with bad old arrangements.

General paralysis accounted for one-quarter of the total deaths and one-third of the male deaths, but it furnished less than one-sixth of the admissions. No less than 19 of the 106 deaths were due to cerebral hæmorrhage or softening. Of these 19, four were seventy years of age and upwards.

*Glasgow District: Woodilee.*—We must congratulate Dr. Carre on having presented the statistical tables in the full form now authorised by the Association. We can only hope that this good example will find many followers in Scotland, thus preserving in usable shape much valuable information. The incidence of alcohol is much below that at Gartloch, both in regard to heredity and personal causation. Perhaps a further and more particular inquiry may lead to greater returns, otherwise an established differentiation between the two asylums, both fed by the same area, would call for some explanation on scientific grounds. The incidence of general paralysis is much the same as at Gartloch. It is pleasing to read that while ninety-eight of the staff contracted out of the Superannuation Act, the managers have given a subsidy of £2 to meet contributions of those who are paid £22 or under.

A considerable trial appears to have been given to "606" with the subjoined results:

"Seven cases of general paralysis and one of secondary syphilis were treated with Ehrlich's dioxy-diamido-arseno-benzol—'606.' In four of the cases of general paralysis the result was undoubtedly beneficial, as they showed marked improvement both in their physical and mental symptoms after the injection. In two of the cases the improvement was maintained for eleven and thirteen months respectively, but relapses took place after the periods mentioned, and symptoms which were present before injection reappeared. The other two cases which were benefited have had no recurrence of symptoms, one having been discharged eight months after injection, and the other has been working in the garden for ten months. These two patients received one injection each fourteen months ago. The three remaining cases of general paralysis showed no change in their condition after injection, but they came under observation late in the disease. The case of



secondary syphilis treated showed rapid disappearance of all signs of the disease, and there has been no return of symptoms since injection, which was performed six months ago."

*Inverness District.*—Boarding-out of patients is still carried out in this district to an extent that allows it to take the lead in the exposition of the system. Not only are patients sent from the asylum, but inspectors of outlying parishes are encouraged to send their suitable cases to be boarded out. Within a sixteen-mile radius of Inverness there are located no less than 132 (males 51, females 81), who are either placed with related guardians (38), or with unrelated guardians (84). The reason for thus seeking this centre is that in case of illness or breakdown the asylum is handy, so that the expense and risk of moving them from long distances to the asylum is obviated. Dr. J. F. Sutherland, who made a special report on the system, divides these 132 into "useful" 47, "moderately useful" 43, "useless" 42. The Inspector of the district makes a special study of proper homes, and it is reported that another 50 could be easily housed in like manner. The accommodation of the asylum is of course notably relieved from pressure. At first sight it would appear that this system might be adopted with benefit in all districts, but it must not be forgotten that, in addition to suitability on the part of the patient, there must be perfect suitability on the part of the proposed guardian. Where a system has been started like this and is kept up and regulated by zealous work on the part of supervisors it must be successful, but we doubt whether there are many localities that can supply the right sort of guardian. In England certainly there are few, if any such. With the country over-run with railways and well covered with public-houses the difficulties are much enhanced.

General paralysis, which was utterly unknown here forty years ago, has evidently got hold of the district, no less than five men and one woman having being admitted in the course of the year.

*Roxburgh.*—Dr. Carlyle Johnson gives a full exposition of his views on the large bulk of current legislation promised. On the subject of the curtailment of the hours of nursing by Act of Parliament he writes:

"It can be confidently asserted that if the schedule of hours recommended by the Select Committee is imposed, the result will be that in some of the asylums the hours will on the average be longer than they are at present. It is the unanimous opinion of the medical superintendents of Scottish asylums that, with respect to the interests of attendants and nurses alone, a serious blunder has been made, and that, instead of increasing happiness and contentment, the Bill would lead to general dissatisfaction and disputation. That the proposal, to limit by statute and under penalty the time which a nurse may devote to the interests of her patients, threatens grave injury to the nursing spirit, and to a most helpless class of sick persons, is also the unanimous opinion of those physicians who have spent the whole of their working lives among the insane and their attendants."

In referring at length to a measure foreign to us in England—the Scottish Lunacy Bill—he makes one serious point about the accommodation of private patients in pauper asylums. If the clause regulating this should really be enacted we may well say that things are managed better in England, where at least such private patients can wear their own clothes.

"The third clause empowers district boards, with the sanction of the General Board of Lunacy, to receive private patients into district asylums and to provide accommodation for them; but they may not charge for such patients a sum exceeding £10 per annum in addition to the rate of maintenance fixed for pauper patients, and it is stipulated that 'Private patients in district asylums, whether provided for apart from the pauper patients or otherwise, *shall have the same accommodation, food, and attendance in all respects as the pauper patients.*' It is difficult to understand how such a harsh, retrograde and inconsiderate proposal can have been allowed to find its way into print. If the clause becomes law, the poor professional man, the small farmer, the village shopkeeper, the well-doing artisan, the schoolmistress, the decayed gentlewoman, the subjects of mental disorder, instead of being relieved by statute from those disabilities and restrictions which a generous dispensation has hitherto done its best to lighten, will be definitely condemned to pay prohibitive rates for their treatment, and in many cases to be exiled from their homes, or submit to be regarded and treated 'in all respects' as paupers."

*Stirling District.*—The available accommodation here is getting so limited that fresh building has to be considered. Dr. Campbell points out that the present hospital is incapable of enlargement, and he boldly recommends the erection of a new block for the reception of one hundred recent and acute cases only. This illustrates the need for asylum buildings being built with an eye to the far-distant future. A time must come with the increase of population (whether lunacy itself is or is not relatively increasing) when there must be a call for more accommodation. It is a pity when it is found that a block, which thoroughly meets requirements, cannot be enlarged on account of the nearness of other blocks, though, of course, in this instance an opportunity is afforded of erecting something even better than that which exists. We suggest that the Committee and Dr. Campbell are under a misapprehension as to the effect on accommodation which will be made by the Mental Deficiency Bill when it becomes law. It is thought that it will increase the pressure on the asylum. On the contrary, one of the Home Secretary's great points was that the asylum would be relieved of many of its occupants, who would be housed in a colony or other house, half-way between the asylum and the workhouse.

We note that the incidence of alcohol was assigned in 17 *per cent.* of the admissions, in each case as the exciting cause. In 20 *per cent.* adolescence is returned as the predisposing factor; this is a grave evidence of degenerative conditions. General paralysis is returned as the *cause* in seventeen cases. The assignment of a disease as a cause of itself opens the door to much argument, as we have often pointed out before. To say the least of it, it is unusual, especially as an exciting cause. We note, too, that no less than eight cases—six males and two females—suffered from acute delirious mania, a heavy tax on responsible nursing.

#### *Scottish Chartered Asylums.*

*Crichton Royal Institution.*—Dr. Easterbrook, like most of his colleagues, devotes considerable space to the criticism of the many Bill's impending in Scotland. He puts his case so ably against the proposed limitation of hours that we venture to reproduce his argument in his own words :

"Scottish attendants and nurses have their fair share of common-sense, practical-mindedness, and sympathetic consideration for others, and they know that, from the nature of their service, and in the welfare of the insane, the asylum day must ordinarily last from about 6 a.m. to about 8 p.m., or later on entertainment evenings, and the asylum night from about 7.45 p.m. to about 6.45 a.m.—a certain amount of overlapping of the hours of duty of the day and night staffs in the evenings and especially the mornings being necessary, so that at the times when they relieve one another they may hand over their charges properly and safely. From the nature of the work the attendance and nursing of the insane must be run on the lines of a domestic and hospital service, not on the lines of a trade or industry or commercial undertaking, and the ordinary working day and working night of asylum service, with their natural limitations of the hours of duty for the day and night staffs, cannot be actually shortened within these limits without the introduction of a third relieving staff—in other words, of a 'three-shift' system of attendants and nurses, a system which would be most detrimental to the welfare of the insane, not to mention that of the attendants and nurses themselves with so much idle time thrown on their hands. The proper remedy for the improvement of the conditions of the service as regards the long hours of duty is, not to attempt to curtail the ordinary asylum day and night, which the nature of the work demands and which has the sanction and approval of those who have the best interests of the insane at heart, and who have worked longest and most intimately amongst them, but to continue along the lines of the substantial progress of the past, and to still further improve the leave of absence from duty of the nursing staffs."

*Gartnavel.*—The proposed Scottish Lunacy Bill appears to have raised some doubt as to how the clause to which Dr. Carlyle Johnstone draws special attention to will affect the interest of those Royal asylums where many patients are admitted at £40 or under. As a general rule competition must be held to be good, as it means the offering of the best for less money, or more for the same money. But the case may be considered to be different when charitable contributions are pitted against the bottomless public purse. The Bill, however, as it stands, handicaps the latter enormously with the provision animadverted upon by Dr. Carlyle Johnstone. A time must come when the accommodation for poorer cases in Royal asylums will be entirely absorbed. What will become of the £40 patient then?

In relation to discharge of improving patients Dr. Oswald writes :

"I venture, however, to express my firm belief that patients are more frequently discharged too soon than needlessly detained. The patient improves, brings pressure to bear on his or her friends, appeals to their sympathies, and is removed often against their better judgment. In such cases neither the patient nor the friends are the best judges of the fitness for liberty, but the public are entitled to protection against the danger that comes to the State by the procreation of mentally unfit children, and from the presence in the community of those who cannot be regarded as normal. Statistics from the London asylums show that nearly 20 *per cent.* of those discharged in the last sixteen years have found their way back ; 12 *per cent.* within twelve months of discharge. A longer period of treatment would tend to a greater mental stability, and it would diminish the social danger."

Dr. Oswald, in describing the benefits arising from clinical clerkships, rightly points out that it is good for the asylum and good for the clerks themselves, in so far that the experience thus gained enables them to recognise abnormalities of the mental state in earlier stages. We should go considerably further than that in saying that their whole practice will be benefited by practical acquaintance with the influence of mind over body. It will assist in the impartial analysis of symptoms which might

otherwise be looked at from either mental or physical side, according to the general trend of mind in the observer. This must be to the advantage of the patient. Besides, it leads to a more cautious interpretation of signs that at first sight seem precise enough, but which, read by asylum experience, may turn out to have been seductively fallacious. Beyond all it prompts to the whole study of man, and thus broadens opinion. But we must own that asylum residence can be easily too protracted for the purpose of general practice.

*Some Irish District Asylums.*

*Belfast.*—Dr. Graham reports that the admissions have decreased by 17 *per cent.*, or 46 less than last year, and that the first admissions are less by 39 and the re-admissions less by 7. He asks the question whether it may be considered that after going down hill for many years, they are not beginning to ascend? He thinks that such a happy inference may be drawn. He points out that this decrease is in spite of the greater humanitarianism, which prompts the earlier and more complete segregation of the defectives. He says that it is well that the operation of the Mental Deficiency Bill should not be extended to Ireland at present, as they have not yet the machinery for working it. When, however, they are ready for it, it will lead to a great decrease in those registered as insane at present. He thinks that through the foresight of the Committee in adopting the villa system, it will be possible then to do a good deal under the new Act on their own territory, by making a large colony system for all classes of defects. Undoubtedly this is an ideal that should make for the most comprehensive and satisfactory dealing with the whole scheme of mental deficiency, which is really in essence one and indivisible, the only differentiation in its components being that brought about by law and convenience. It may be hoped that the benefits of training which necessarily will be provided for the less damaged brains will in time be extended to the more mentally infirm, and thus lead to some utilisation of the labour which lies wasting in asylums. Dr. Graham points out that the villa system lends itself to the admission on payment of those classes above the pauper, since the subdivision of the accommodation allows of greater classification on social lines.

We are glad to see that in respect of ætiology and of the forms of mental disease the relative nomenclature of the Association has been officially adopted. We can now hope for some valuable information, especially under the first heading. Would that some good genius would send such an idea into the heads of Scottish authorities. We are able to note that in this instance alcohol has an incidence heavier than England's average, especially in the females. In five-sixths of the latter it acted as a principal cause. We note, too, that at this asylum, as at the Down Asylum, in three cases the drug habit was the assigned cause. The proportions in each case are small, but are very much larger than the ratio in England. It suggests a point worth watching. General paralysis is reported in 9 male cases out of 99 and in 2 females out of 134 admissions.

*Down District.*—Dr. Nolan makes a strong appeal to the good sense

of county councils. He laments that they have not taken advantage of a provision inserted at his suggestion into an early act of Edward VII, enabling the Councils to provide for scientific study in asylums. In this respect, Ireland is behind its sister kingdoms. In discussing the proposed Bill of Lord Wolmer's, Dr. Nolan says that the suggested reduction of hours of asylum employment to sixty per week, with a provision for 25 *per cent.* extra payment overtime,<sup>(1)</sup> has met with the approval of a convention of Irish asylum attendants. Thus, it is thought, Committees would be spared any serious addition to their staff. However this may be, the compromise cuts the ground entirely from under the chief *motif* of the suggested legislation. This was to remedy the evil of excessive duty. If an agreement is come to as to the proper number of hours, how can any addition be made deliberately to that number which would theoretically lead to excessive duty, and consequent prejudice to the patients? Undoubtedly in some places the staff was, and is, overworked, but to do more than the defined maximum for gain is simply to confirm the suspicion originally formed in many quarters as to the real end sought for. It would be surely more dignified to settle the maximum at a higher point and adhere to it, at the same time, if necessary, increasing ordinary wages; the same end would be attained, and consistency of thought would be secured. To put the matter shortly—it should be ascertained, and then fixed, what is the time during which anyone can be properly called upon to do his duty to all, and that time should not be exceeded except under emergency that cannot be met by any other measure than overtime. When such emergency calls for overtime then a proper payment should be made. We learn that the convention mentioned above considered seventy hours as a fair limit. To adopt, under these circumstances, a maximum of sixty, with a view to overtime being made, is not a fair and square procedure.

*The Lebanon Hospital for the Insane.*

This report, always interesting, has an additional interest this year, in that it announces the retirement of the original founders, Mr. and Mrs. Waldmeier, the former having passed his eightieth year. It is a convenient time for looking back over the work done during the existence of the Institution. It was founded in 1896 as a very small beginning, prompted by the sights of misery and cruelty which the founders discovered among the unfortunate insane of the district. At first, if we remember rightly, the initial stages were not free from risks of personal dangers to them at the hands of fanatics, but certainly they had to face race-hatred, creed-hatred, and the machinations of the "wise" men who affected to charm away madness in their own peculiar methods. But the enduring piety and sensible control displayed from the first has beaten down all these, and now, as the best evidence of the respect which the work has engendered, the proud title of "waki" has been accorded to the whole property of the Institution at Asfuriyeh. This term specifically marks it as a pious foundation, unassailable, to be used for all time only for the purposes for which it was founded. It now treats about 200 in the course of the year, apparently having

(1) These were not the final proposals in the Bill.

accommodation for about 100 patients at any one time. It is going to be considerably enlarged through a magnificent donation of a new house by Mr. Frederick Greene. Though much help comes from Switzerland, Holland, Germany and America, the British element is strongly represented, the medical superintendent having always been a native of these islands, the general committee, the treasurers, trustees and other officers being dwellers in the United Kingdom. Further, it can be said that the lines of management and treatment are absolutely British in character. The institution is another example of the splendid work done for the insane by our country wherever it goes, either to Egypt, where, in the face of tremendous difficulties, Dr. Warnock has evolved not one only, but two asylums that will compare with any; or to the Colonies or to India, where the same beneficence is accorded to natives as to English. Such cosmopolitan success must surely denote the absolute correctness of the great underlying principles.

The report contains several medical tables resembling our own as far as may be, though they do not go the length of differentiating transfers from direct admissions. The admissions for last year numbered 102, while the deaths and discharges amounted to 103, leaving the residence at the end of the year at 95. It is somewhat curious to note that the months of May and June supply a large proportion of the admissions and recoveries. We have made a similar note more than once in relation to the London asylums, where the months of increased activity are nearly identical. The suggestion made is that there is in all people a crisis in the early part of the year, when physical readjustments give greater opportunities for the entrance of the enemy, and, at the same time, for its successful ejection. The recoveries amounted to 33, and this gives a percentage that compares very favourably with our home results. As to causal factors, heredity is assigned in 4 cases only, but Dr. Watson Smith finds that the friends are obsessed with the idea that he ought to know much more than they do about the patients' past, present and future. Puberty and adolescence were given in 10 cases, equally divided between the sexes; climacteric in 2 cases only. All the foregoing factors are ranked as contributory. As to the principal causes, mental stress was found, as sudden, in 7, and, as prolonged, in 9 cases. Hasheesh accounted for 1 case (a large difference from Egyptian ratios), morphine 2 cases, alcohol 4 (all males), general paralysis 7 men and 2 women, syphilis 2, neurasthenia 3 cases. No history could be elicited in 34 cases, so the percentages to be struck from the above would be on a basis of 68 cases. Mania supplied 25 and melancholia 17 admissions—recent cases only. A notable form was that of dementia præcox, of which 24 cases were found. Since Dr. Watson Smith is enabled to divide these up into hebephrenic 17, katatonic 2, paranoides 5, we may be assured that he has studied the disease on the most approved lines, and that this large number does not represent hasty and lazy diagnosis. It is to be noted that out of all these only two hebephrenics were females. Another point that strikes one is the comparatively short residence of those discharged. Unfortunately these are not divided into the recoveries and others; therefore the full value cannot be given to the figures. But, of the 92 discharges, 22 were out in less than one month and another 19 in

the second month; 68 out of the 92 went out in less than six months. The deaths, 11 in number, arose from apoplexy 2, exhaustion from melancholia 1, general paralysis 4, pneumonia 1, phthisis 2, accident 1. The absence from the list of typhoid, dysentery, etc., speaks well for the sanitary precautions taken in such a dangerous locality. To enforce what has been said about the triumph of good over evil, we would point out that the 102 admissions came from Lebanon 39, Damascus 5, Beyrout 29, smaller numbers from many towns known to us through Holy Writ, and some from Egypt, Armenia, New York, Tunis, Cyprus. Then, the religions were as follows: Greek Catholic 8, Greek Orthodox 31, Maronite 24, Moslems 17, Protestants 4, Jews 8, Roman Catholic 2, Druses 2, Syrian Catholic 5, and Armenian 1. The Moslems led the way in gratitude for benefits received. But what an amount of tact and forbearance must be exercised in order to keep the peace in such a mixed crowd! We can say with certainty that the forementioned dangers are overpast, crushed by the superior force of rightly directed altruism.

But there is still one enemy that faces us all at times — the enemy of insufficient means. This institution has done well to keep a small balance on the right side. It has a small income from the payments of a few patients, but as the largest rate that is paid comes to 5s. *per diem*, it is evident that the welfare of the place must depend on the voluntary aid accorded. There has been hitherto about sufficient both in money and in kind. Of the latter a good example is the gift of a £700 air-gas installation from Switzerland, which is proving of the utmost benefit. The cost of the house to receive this, however, has to be provided for. At the same time, it is pointed out that the state of war in Turkey and its dependencies has much enhanced the price of all goods, and the increase in accommodation above mentioned must necessarily lead to larger expenditure. We at once admit that it is not within our province to solicit contributions, which are so urgently called for, but we may suggest with propriety that the present is an exceptional opportunity for being kind. On looking down the list, we see that several of the senior and leading men of our Association are yearly contributors, and we suggest that the list might well be amplified by other members and their friends. We feel that, to some extent, there is a connection between the Association and the Lebanon Hospital. Dr. Watson Smith is one of our members. The efficient management is a striking example of the successful application of those principles which have always been at the root of our work, and, as said before, the exponents thereof mostly fellow countrymen. We see that Drs. Percy Smith and Bedford Pierce are trustees, and Miss Gooch the secretary, at 35, Queen Victoria Street, E.C.

### Part III.—Notes and News.

#### THE MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

THE QUARTERLY MEETING of the Association was held at the Darenth Industrial Colony, Dartford, Kent, through the courtesy of Dr. Rotherham, on Thursday, February 20th, 1913, under the presidency of Dr. J. G. Soutar.

There were present: Drs. T. S. Adair, G. A. Auden, H. M. Baker, D. Bower, A. N. Boycott, J. Chambers, P. E. Campbell, W. E. Collier, M. A. Collins, L. F. Cox, A. R. Douglas, T. Drapes, A. I. Eades, J. A. Ewan, F. H. Edwards, G. Evans, E. Faulks, C. L. Hopkins, W. D. Higson, R. Hughes, G. B. Hartnell, H. E. Haynes, W. B. Hill, J. Keay, H. W. Lewis, N. Lavers, E. Mapother, H. J. Mackenzie, A. Miller, J. Merson, B. H. Mumby, W. F. Menzies, W. Muirhead, W. F. Nelis, H. J. Norman, D. Ogilvy, E. Powell, E. Pasmore, A. Rotherham, F. O. Spensley, R. P. Smith, P. G. Stilwell, R. H. Steen, L. Watson and others.

Regrets at inability to be present were received from several members of the Association.

During the morning members were conducted through the Colony by Dr. Rotherham and his colleagues, and were much impressed by the exhibits and spheres of activity in the various workshops and wards. During the day the brass band attached to the colony played selections in a manner which was really creditable. A welcome luncheon preceded the discussions, and was attended by Mr. Helby, Chairman of the M. A. B. committee dealing with this work.

The PRESIDENT said the Secretary, Dr. Collins, had warned him that the luncheon room must soon be vacated for that other room where the real business of the Association would be transacted, though he was sure many would prefer to remain and linger over the delicacies which had been provided. Still, work was the main object of the Association's existence. But before leaving the room it was only right to take the opportunity of thanking Dr. Rotherham and Mr. Helby, as well as the other officers of the institution, for the very cordial welcome they had extended to the members of the Association, for the many matters of interest they had provided for them to see, and for the generous hospitality of which they had been the recipients. Far back in the history of the Association it had been the custom to meet at various institutions throughout the country, and those meetings had been of great educational value. The experience of recent years had thoroughly confirmed that view, and he was sure those present would agree with him that the meeting at Darenth on the present occasion had amply confirmed the general experience. To his mind, this was an absolutely amazing institution; it had been an eye-opener even to those who previously knew something of these matters and had been associated in some degree with the type of work which was being carried on here. If the public could only know what had been done, and what was being done here, he believed that many doubts and difficulties in regard to an important matter which had been occupying attention would be dissipated. The Association was interested in everything connected with asylum administration and with the treatment of patients; but from time to time their attention had been more fully occupied with one subject than with others. Recently their attention had been very strongly directed to the question of the Mental Deficiency Bill, therefore it was specially appropriate that they should have had the opportunity of coming here to-day. Any number of ideas and suggestions must have crowded in the minds of members as they wandered through the workshops and wards of Darenth; and there was one idea which came to his own mind with imperious iteration, namely, that if Dr. Rotherham could only see his way to accommodate for the remainder of their short recess the members of the Cabinet and of the House of Commons generally, at Darenth, they would rapidly pass through all its stages a Mental Deficiency Bill which would confer upon thousands of neglected persons the boons and benefits which were possessed by the inmates of Darenth Colony. Another suggestion which came to his mind was this, when



one went round this seminary—for Darenth must be reckoned one of the educational institutions of the country—that the system adopted here was one which might be applied with enormous advantage in the public schools of the country. For what did one find? That the first thing which was done with the pupils was to find out by careful consideration what was the limitation and potentiality of each, and the system of education was applied on that finding. He invited his hearers to think what that might mean if throughout the schools of the country that system were adopted; the difficulties and misery of the pupils would be reduced enormously, and on the other hand, the opportunities for development would be vastly increased. He thought the principle of individualising, which was so strongly marked a feature of this institution, was one which might very well be imitated in many of the other educational institutions of the country. In the meeting about to take place a paper was to be read by Dr. Spensley dealing with the work done in the Colony, and he did not wish to anticipate that, and hoped he had not done so in anything he had said. His only object in rising was to express to Mr. Helby and Dr. Rotherham the Association's very sincere gratitude for the way in which they had received the members, and to tell them that they had afforded them a most interesting and instructive morning. He offered the toast of success to Darenth and to those who, by their labour and constant attention to detail in a most important work, had brought it to the pitch of perfection at which it had arrived. The staff clearly were endeavouring in every possible way to extend the benefits of the institution. With the toast he coupled the names of Mr. Helby and Dr. Rotherham. The toast was drunk with great cordiality.

Dr. ROTHERHAM said he wished to thank Dr. Soutar for the many kind things which he said about Darenth, and the general company for the manner in which they had received the toast. All at the institution—officers, servants and patients—were deeply honoured by the large number of members of the Association who had taken the trouble to take part in the visit, and he hoped all would depart with the feeling that their day had not been entirely wasted. Darenth was not by any means a new institution; in the last few years it had changed considerably, both in character and form; and he thought that Dr. Fletcher Beach and Dr. Taylor, both of whom he was pleased to see present, would scarcely be able to find their way round the Colony in its present condition. About those changes he felt a temptation to say a good deal, but at the meeting about to be held Dr. Spensley would be reading a paper on the matter, therefore he would say nothing. But one point on which he might be allowed to say a word was as to the institution's industrial staff, and the way in which they worked. At the present time there were twenty-four female industrial attendants and nineteen male. The male industrial attendants were all skilled people, men who were skilled in their particular work before they took up their posts in the colony; he referred to those in such crafts as printers, bookbinders, etc. The female industrial instructors were drawn from the Colony nursing staff; they had to learn their work here after they came to the Colony, and before they were able to teach patients. With regard to the manner in which the industrial section was worked, he believed that a teacher was very much better able to teach a pupil if he or she understood the ways of that pupil, both at work and apart from work. To that end, they at Darenth had always had their trainers working in the wards as well as in the workroom. That, he believed, entered largely into the success which had been achieved with the pupils. Associated with him in the toast was that of his Chairman, Mr. Helby. It was somewhat difficult to talk about one's Chairman. Mr. Helby had been, for the last eight years, either Chairman of the Metropolitan Asylums Boards as a whole, or Chairman of this particular sub-committee. Had he not been in that position, this Colony would not have been in its present position. Mr. Helby was a man of business and he knew his own mind, and when he wanted a thing done it had got to be done, and it had to be done quickly; there was no red tape about it. Mr. Helby, at the present moment, wanted to say a few words, and it had got to be done quickly, therefore he would, himself, sit down. (Laughter and applause.)

Mr. HELBY, who was very cordially received, said that as he had to be quick about the work, he would remark, first of all, that he felt in a somewhat awkward position. Generally he was in the chair, and Dr. Rotherham was by his side. The position was now reversed, and Dr. Rotherham had inveigled him there, but he had no idea that he would be expected to make a speech. He felt somewhat nervous

as being almost the only layman amongst a lot of professional men. However, he could say it had given him the greatest possible pleasure, as Chairman of this Committee, as well as on behalf of the Board, to have seen the members of the Association there that day, and he trusted it had been, as Dr. Soutar had said, both instructive and interesting. During the last nine years this had been almost his life-work, if there was any work he had done during his lifetime which had been of some service to his fellow-men to make them happy. He had perhaps done something to make fellow-beings happy and contented at the same time as he had looked after the interests of the ratepayers of London. But that work could not have been done without the cordial and harmonious working of the staff. Dr. Rotherham had stated he did not like to say anything in the presence of the chairman, but he, the speaker, was not afraid to say anything in the presence of Dr. Rotherham. Without a man of Dr. Rotherham's calibre this work could never have attained the high state of perfection seen at the present time. His staff were most loyal to him, and by their harmonious working the work had been done most efficiently. A great question had arisen in connection with the Mental Deficiency Bill, and a few weeks ago he formed one of a deputation to go before the Home Secretary. The Home Secretary was not present, but his Under-Secretary, Mr. Ellis Griffiths, was there, and he said to that gentleman, "Look here, Mr. Ellis Griffiths, if only a Committee of the House of Commons would attend for three hours at Darenth Colony, that would do more good to this work than by people standing for three or four weeks talking who mostly know nothing about the work on which they are called upon to decide." Those present saw what had been done at this institution, but some of them had not seen it as he had during the last fifteen years. Nine years ago, if they could have been there and seen the poor creatures wandering about the airing courts, like prisoners with a warder with them, and then looked upon the residents that day, they would have been as much impressed as he was. He regarded it as one of the best things he had done in his life to assist in bringing about this state of improvement—only to assist, because it was officers like Dr. Rotherham who were able to carry out the detail and get the best work. He would like to say a good deal more on the subject, but he knew that members were eager to get to another room, to their principal work, where he understood Dr. Spensley would put his fellow-doctors in possession of many facts about the institution. He was much gratified with the way in which the toast of his health had been received. Before resuming his seat, he wished to read to the assembly the last clause of the Report of the Commissioners in Lunacy, which was made a few weeks ago: "We cannot conclude without expressing our pleasure and satisfaction with all we saw and learned during our visit of inspection, and we desire to record our impression that the work of the institution is being carried out on well-planned lines, and with much skill and thoughtfulness in organisation, and that the object in view, namely, the adequate training and occupation of the imbecile class, is being attained in a most satisfactory and gratifying manner." (Applause.)

#### MEETING.

The **PRESIDENT** intimated that the minutes of the previous meeting had already appeared in the Journal, and asked whether the meeting would approve them and take them as read.

Agreed.

#### ELECTION OF CANDIDATES.

The **PRESIDENT** nominated Dr. Wolseley Lewis and Dr. Stewart Adair as scrutineers for the ballot, and the following gentlemen were duly elected ordinary members:

Brunton, George Llewellyn, M.B., Ch.B.Edin., Assistant Medical Officer, Lancashire County Asylum, Winwick. (Proposed by Drs. Alexander Simpson, F. M. Rodgers and William Boyd.)

Glashan, Herbert, William, M.B., Ch.B., Assistant Medical Officer, Natal Government Asylum, Pietermaritzburg. (Proposed by Drs. James Hyslop, Rutherford, Macphail and M. A. Collins.)

Ryan, Ernest Noel, M.D., B.Ch., B.A.O., B.A. (Trinity College, Dublin), Medical Officer, Northumberland House, Green Lanes, Finsbury Park, N. (Proposed by Drs. Bernard Hart, Frank R. King and M. A. Collins.)

Shand, George Ernest, M.B., Ch.B. Aberd., Birmingham City Mental Hospital. (Proposed by Drs. Alfred A. Miller, John R. Lord and M. A. Collins.)

Dr. F. O. SPENSLEY read a paper entitled "A Brief Account of Darenth and its System of Industrial Training," which was followed by a discussion (see p. 305).

Dr. WINIFRED MUIRHEAD (Edinburgh) read the following communication from Dr. GEORGE M. ROBERTSON, Physician-Superintendent, Royal Edinburgh Asylum, Morningside:

#### THE DEMONSTRATION OF *TREPONEMA PALLIDUM* IN THE BRAIN IN CASES OF GENERAL PARALYSIS.

In the February number of the *Journal of Experimental Medicine* there is a communication by H. Noguchi and J. W. Moore on the finding of the spirochæte of syphilis in the brain of twelve out of seventy cases of general paralysis of the insane. They conclude by stating, whether or not, by improving their technique, the organism can be demonstrated in a much higher percentage of cases, will be determined by further investigations.

The relationship of syphilis to general paralysis has been one of the most interesting and controversial subjects in psychiatry for many years, and this discovery appears finally and conclusively to lay at rest this debatable point. It has passed through the following stages: Esquirol and Bayle, the original discoverers of general paralysis, pointed out in the first quarter of the nineteenth century that it occurred very frequently among soldiers and those who were guilty of alcoholic and venereal excesses. In 1857, Esmarch and Jessen expressed the opinion that syphilis was the invariable cause. This observation was overlooked till Fournier, about twenty years later, pointed out that syphilis was the cause of locomotor ataxia, and that the ætiology of general paralysis appeared to be similar. In 1894, he published his work on parasyphilis, in which he stated that general paralysis was syphilitic in origin but not in nature, because its lesions were diffuse and it was not amenable to anti-syphilitic treatment. The interval between infection and the onset of the disease was also long. In 1897, Krafft-Ebing inoculated nine advanced cases of general paralysis in whom no history of syphilis could be obtained with virus from two cases of syphilis in twenty places, and after six months' observation no reaction was obtained. In 1906, Wassermann and Plaut applied the Wassermann reaction for syphilis to the cerebro-spinal fluid of cases of general paralysis and obtained positive results. Finally, in December, 1912, Noguchi applied a modification of the Levaditi method of staining, and demonstrated the presence in great number in twelve cases of the spirochæte of syphilis.

Through the kindness of Dr. Noguchi and my friend and former assistant, Dr. W. K. Henderson, now of the psychiatric clinic of the Johns Hopkins Hospital, I have been favoured by the presentation of a section of the cortex. This shows the spirochætes in large numbers stained black, and so distinctive as to be quite unmistakable. Regarding these, Drs. Noguchi and Moore write: "The spirochætes were found in all layers of the cortex with the exception of the outer or neuroglia layer. One was located at the border of this layer but not within it. A few were found subcortically. Careful search of the pia failed to reveal any of the organisms. In all instances, they seemed to have wandered into the nerve-tissue. They were not found in the vessel-sheaths, and seldom in close proximity to the larger vessels. There seems to be no ratio between the number of spirochætes and the severity of the parietic process, although the case in which they were most numerous showed excessive parietic changes."

It only needs to be added that all the cases presented the typical appearances of general paralysis, and that in none were any signs of the distinctive or focal lesions of tertiary syphilis found after a careful examination.

Dr. MUIRHEAD also demonstrated the slide under the microscope, and was thanked by the PRESIDENT, in the name of the Association, for bringing the matter before the meeting.

## BUSINESS ARISING OUT OF THE COUNCIL MEETING

The President of the Council had asked that the Council should be informed as to the progress of the work of the Council, and he would like Dr. Collins to read the report which would be sent to the Council.

Dr. COLLINS, General Secretary, read the resolution as follows: "That the Parliamentary Committee should be asked to consider a resolution that the Council should be asked to express its opinion on the Home Secretary's proposal that the purpose of a Committee be established consisting of Dr. Wolseley Lewis, Messrs. Power, Spence and Sturges, and to arrange as a department."

The President pointed out that the resolution came originally from the Parliamentary Committee to the Council, and the Council had decided to bring it before the Association for confirmation. Very strong arguments were urged against criminal lunatics being in county and borough asylums, and it was thought that the Association should make an effort to have them removed. It was not the meeting if it thought fit to approve of the suggestion. He would like it to be duly proposed and seconded.

Dr. WOLSELEY LEWIS said he would be glad to propose that the resolution which had been read should be accepted by the meeting. The question was an old one, and it had been often discussed by superintendents of county asylums, because there were many reasons why it was undesirable for criminal lunatics to be sent to county and borough asylums. Unfortunately if they were sent to the asylums on the order of the Secretary of State, the superintendent had no power to have them removed elsewhere; his only recourse was to request the Secretary of State to remove them. The reason why these people were undesirable to have in asylums was known to all engaged in the work, especially at asylums which had prisons in their neighbourhood. It was a great hardship on the other patients, because often habitual criminals came who had to be placed in wards with recoverable patients, yet the habits and language of these said criminal lunatics were disgusting in the extreme, and they taught other patients things which they otherwise would not know. It was also unfair to the mass of the criminal lunatics themselves, for most of the county asylums nowadays were constructed on hospital lines, and there were no structural arrangements for keeping them safe. Hence they had to be treated more severely than in such places as Broadmoor, where he knew the conditions, having been medical officer there. The criminal lunatic could not be allowed so much liberty in ordinary asylums, for the reason he had given; and to have such cases there was a serious menace to the public safety, seeing that some of the men were most expert burglars. To have them there was also unfair to the staffs of the asylums. Everything was done nowadays to encourage asylum staffs to treat patients with every kindness and consideration, but many habitual criminals it was impossible to treat on those lines. For those reasons he considered it was most improper that the county and borough asylums should be compelled to house them, simply because the Government would not expend the necessary money to look after them.

Dr. BOWER seconded the motion, and said he did so from the point of view not only of a medical officer, but as a member of an asylum committee. Besides the classes which Dr. Wolseley Lewis mentioned as having to be taken in to asylums, whether the staffs of those institutions were willing or not, there were other cases whom the Secretary of State wanted boarded out in asylums, and he tempted committees to fill up vacant places by taking criminal lunatics. As a member of the committee he, Dr. Bower, would be very glad if the committee were protected from the inducement to take these patients, by making it absolutely necessary that they should be kept in Government establishments.

Dr. BOYCOTT said he could fully endorse everything which Dr. Wolseley Lewis had said about criminal lunatics, but he considered that a strong distinction should be made between the ordinary criminal lunatic and what one might describe as the lunatic criminal. The latter was a person whom, he thought, one should not receive into a county asylum. One class committed a crime because he was a lunatic; and in the other class the person became a lunatic while he was a criminal; he was a criminal in the first place, and such a case the county asylum should not be called upon to deal with. But great hardship might arise in certain cases in which

if patients could not be sent to county or borough asylums who were lunatics first and criminals by accident; it would be "hard luck" on those people to be forced to reside at Broadmoor and similar places; although, as he had said, he thought criminals who became lunatics should not be sent to county or borough asylums. He had no amendment to propose; he simply wanted to raise the distinction.

Dr. CORNER suggested that the difficulty raised by Dr. Boycott could be got over by the insertion of the qualifying word "habitual." The point was as to whether a person was a habitual criminal, or whether he had committed a criminal act while in a condition of lunacy. After committing one criminal act he could be admitted into an ordinary asylum; but if he were an habitual criminal besides being a lunatic, he was the class of case the lunatic asylum did not want.

Dr. WOLSELEY LEWIS, replying to Dr. Corner, said "habitual criminal" was a legal phrase; it meant the commission of a certain number of criminal acts in a given length of time. So that if a person had gone a definite length of time without committing such act, he did not come under the term.

The PRESIDENT said that if the deputation was approved by the meeting, they would consider the points which had been raised.

The resolution was carried.

#### OBITUARY.

The PRESIDENT said that before proceeding to the actual agenda, he had to discharge a duty which very few presidents of the Association could hope to escape. Since the last quarterly meeting, three of the Association's members had passed away—Dr. Courtney, Dr. Bailey and Dr. Longworth. Dr. Courtney was, for many years, Inspector of Lunatics for Ireland, and at one time was Secretary of the Irish Branch. Dr. Bailey was, for forty-eight years, superintendent of St. Andrews Hospital, Northampton. Both those gentlemen were very old members of the Association, and each in his respective sphere had left an indelible impress of personality and capacity on the work to which he had devoted his life; each had accomplished his share in lightening the burdens of his fellow men, and each had carried the work in which all the members of the Association were engaged to a higher level of aspiration and achievement. The memory of such men was a precious possession, a stimulus, an encouragement to effort to those who remained. Dr. Longworth was assistant medical officer at the Suffolk Asylum, and he died at the early age of thirty-nine. It was not given to him, as it was to Dr. Courtney and Dr. Bailey, to see the full fruition of his labours, but his qualities of head and heart endeared him to those who knew him. This was not the occasion to tell the story of the lives of these men; that would be fittingly done elsewhere; the purpose now was for the meeting to record their appreciation of their colleagues and express their sorrow that they were no longer with them, and to send a message to the representatives of their families assuring them of the condolence of the Association.

This was agreed to, the members all standing.

#### DR. MERCIER'S ILLNESS.

Dr. HAYES NEWINGTON desired to say a word about a distinguished member of the Association who was at the present time seriously ill. It would be recalled that quite recently the past president, Dr. Mercier, passed through a very severe series of illnesses, so severe that they would have laid most men low. But in spite of all that was left by those illnesses, Dr. Mercier had been amongst his fellow members as late as November last, speaking at the meetings and showing much of his old fire. Two or three days ago he, the speaker, received a card from him stating that he was, as he termed it, in the hands of the Philistines again, and asking him to come and see him. Yesterday he found their old friend very ill indeed. When Dr. Percy Smith and he saw Dr. Mercier after his former illnesses, they were struck by the large amount of buoyancy of spirit, which, he said, carried him through. He regretted that on this occasion Dr. Mercier felt he was without that spirit, and was really ill. Members would hope better things for him than

he hoped for himself. He believed his visit had cheered the invalid, and he came away charged with a message of regret and hopes for a successful meeting. He, the speaker, thought it would be a great comfort to Dr. Mercier if he were to receive the regrets and sympathy of this meeting, and perhaps he might be allowed to convey that message.

Agreed to with expressions of much sympathy.

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### SCOTTISH DIVISION.

A MEETING of the Scottish Division of the Medico-Psychological Association was held at H.M. Prison, Perth, on Friday, March 14th, 1913.

*Present:* Drs. Alcock, Bruce, Carre, Chislett, Clarkson, Havelock, Hotchkis, Carlyle Johnstone, Keay, Kellas, Mitchell, Muirhead, T. C. Mackenzie, McRae, Oswald, Parker, Ross, Shaw, Soutar, Sturrock, Urquhart, and R. B. Campbell, Divisional Secretary.

There were also present as guests: The Master of Polwarth, Chairman of H.M. Prison Commission, Mrs. Sturrock, Drs. Lyell, Hume, Stirling, Taylor, McCall Smith, Paton, Menzies, Meek.

Dr. J. Greig Soutar, President of the Association, occupied the Chair.

The Master of Polwarth, Chairman of the Prison Commission, welcomed the members of the Division, and briefly described the accommodation of the Prison, and the arrangements made by the Prison Commissioners for the care of state inebriates and criminal lunatics.

The minutes of the last Divisional meeting were read and approved, and the Chairman was authorised to sign them.

Apologies for absence were intimated from Sir Thomas Clouston, Drs. Alexander, D. G. Campbell, Dunlop, Easterbrook, Macdonald, Reid, G. M. Robertson, Turnbull, and Yellowlees.

Drs. G. M. Robertson and G. Douglas McRae were unanimously elected Representative Members of Council, and Dr. R. B. Campbell was elected Divisional Secretary.

Dr. Hotchkis was nominated as an Examiner for the Certificate in Psychological Medicine.

The following candidates after ballot were admitted to membership of the Association: Dermid Maxwell Ross, M.B., Ch.B.Edin., Assistant Physician, Royal Edinburgh Asylum (proposed by Drs. G. M. Robertson, Dods Brown and Ross); Percy William Page Bedford, M.B., Ch.B.Edin., Clinical Assistant, Royal Edinburgh Asylum (proposed by Drs. G. M. Robertson, Dods Brown, and Ross).

After the formal business of the Division had been transacted, Dr. Sturrock showed the members over the Lunatic Department and other parts of the Prison and described the methods adopted for dealing with insane and mentally defective prisoners.

On the meeting re-assembling after the tour of inspection of the Prison, Dr. Sturrock read an instructive and interesting paper on "The Mentally Defective Criminal" (see page 314).

Votes of thanks to the Prison Commissioners and Dr. Sturrock for their hospitality, and for the trouble which they had taken to make such an interesting and successful meeting, and also to the President for his conduct in the chair, concluded the business of the meeting.

The members afterwards dined together in the Station Hotel, Perth.

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### THE AFTER-CARE ASSOCIATION.

#### ANNUAL MEETING, FEBRUARY 25th, 1913.

Sir JAMES MOODY, who presided, said that he had accepted the invitation to occupy the chair because he was very much indebted to the Association, which assists the class of the community which is most unable to assist itself.

He had two suggestions to make with regard to increasing the funds of the Association—first, that collections should be taken in the asylums, as was at present done in his and a few other asylums, and secondly, that the clergy might help to make the work known by means of annual sermons. He thought that this might be brought about by making the suggestion to personal friends. He then called upon the Secretary to read the report.

Mr. THORNHILL ROXBY read the report and balance-sheet, pointing out that, if anything, the annual subscriptions were less than last year, and that more help was urgently needed. He mentioned the names of supporters who were unable to be present.

The adoption of the report was moved by Sir GEORGE SAVAGE, M.D., who said that it was a mere outline of the work of the Association. As Treasurer he would like to say that nothing could be done without money, and that everything possible was being done with the money available. He hoped that the report would be accepted as a good evidence of good work.

The BISHOP OF CROYDON said he had much pleasure in seconding the adoption of the report. He was present merely to prove his interest in the Association, which he had done little or nothing to support. But he was engaged in work of a very similar nature, and so knew what a good work was being done, and how urgently funds were needed to carry it on.

The adoption of the report was put to the vote and carried.

The election of Council and officers was then moved by Dr. THOMAS, and seconded by Dr. NEEDHAM, who said that he thought that the public would contribute more liberally if they realised that a great many of the people who are discharged every year are not yet sufficiently well to be able to meet difficulties in the world, and that the aid which this Association gives them means, in many cases, the prevention of relapse, and thus a saving of the rates.

The election was carried.

The CHAIRMAN then called upon Dr. Bond to read his paper on "After-Care in Cases of Mental Disorder and the Desirability of extending its Scope" (see p. 274).

## THE ROYAL SOCIETY OF MEDICINE.

### SECTION OF PSYCHIATRY (Sir George Savage, President, in the chair).

A clinical and pathological meeting was held at Claybury Asylum on March 11th, and was well attended. After the Council had met, Dr. Jones, the Medical Superintendent, kindly gave the members tea. In the meantime, Dr. Paine demonstrated a case of *osteitis deformans* of twelve years' development. During the last two and a half years aural hallucinations, delusions of persecution and progressive dementia had supervened. He showed also a "Case of Organic Disease of the Nervous System, presenting some features of General Paralysis of the Insane," in which there was a negative Wassermann reaction and no lymphocytes. Following upon this was a "Case of Cerebral Tumour, illustrating the value of the Operation of Decompression."

The members then adjourned to the laboratory, where Dr. Mott had provided a demonstration of great interest.

We cannot do better than quote Dr. Mott's synopsis *in extenso* :

(1) *Some recent investigations on the bio-chemistry of the neurone.*

(a) The living nerve-cell seen with the ultra-microscope. A viscous homogeneous colloidal spongoplasm containing an enormous number of minute oval or round granules, which appear highly refractile on the dark ground; the nucleus with nucleoli is seen in the centre of the cell, dark and less refractile. When the isotonic medium (cerebro-spinal fluid) is replaced by water an endosmosis takes place, and the refractile granules escape; these remain discrete and exhibit a Brownian movement, but do not coalesce. It is probable that each granule consists of a colloidal fluid substance surrounded by a delicate membrane of (? lipoidal) substance. No Nissl granules or fibrils are seen.

(b) The living nerve-cell removed from an animal immediately after death is placed in a hanging drop of cerebro-spinal fluid (the normal isotonic medium)

containing a minute trace of vital methylene-blue (Ehrlich). The hanging drop on the cover-glass is inserted into a well on a glass slip and kept at the temperature of the body. Examined with a low power the whole cell appears of a pale delicate blue tint, including the nucleus. With an oil-immersion  $\gamma_{1\frac{1}{2}}$  and 4 ocular the cytoplasm is seen to owe its pale blue colour to the blue staining of the enclosing membrane of the colloidal granules. Seeing that this blue stain may indicate the presence of nascent oxygen it appears possible that this is a provision of the nerve-cell to obtain an enormous surface of oxygen encompassed in a small space, much as occurs in spongy platinum. It is possible to conceive that these granules afford some explanation regarding the chemistry of the neuron. No Nissl granules are seen, nor fibrils, but when the cell dies the former appear, and the nucleus stains deeply.

The results described must be regarded as of a preliminary nature, for on account of difficulties of technique and failure with many methods that have been tried, successful results of staining have only quite recently been obtained, although the work has been in progress more than six months, and a large number of animals have been used. The animals were in most cases guinea-pigs, used for the Wassermann reaction.

(2) *Demonstration of Spirochæta pallida (Noguchi) in culture, living, also silver dark-ground preparation compared with Spirochæta microdentium and Spirochæta refringens.*

(3) *Demonstration of the changes in the central nervous system in a case of myxædema, cachexia strumipriva, and insanity, in which the thyroid was of normal size, but contained hardly any glandular substance; the organ consisted of dense fibrous tissue and lymphoid tissue.*

(4) *Demonstration of the changes in the central nervous system in two cases of pellagra, one being Dr. Box's English case, the other case an Egyptian from the Asylum, Cairo.*

The two cases of pellagra were of great interest, especially the English case, which had never been out of this country.

The demonstration consisted of both microscopic specimens and micro-photographs thrown on the screen. Dr. Mott afterwards received the well-deserved thanks of the Section.

Subsequently Dr. Jones and Dr. Ewart exhibited some clinical cases, giving full details as to their histories, symptoms and course. All were very instructive, especially two cases for diagnosis and a case of "washing mania." Sir David Ferrier, Drs. Mott, Wilson, Devine, Hart and Lord engaged in a brief discussion.

A most successful meeting then terminated.

## ESSEX AND COLCHESTER NEW COUNTY ASYLUM.

### DESCRIPTION AND PLAN.

(From 'The Local Government Journal,' March 8th, 1913, by special permission.)

The Severall's Asylum, or, as it is more popularly named, the Essex and Colchester Second County Asylum, which will shortly be opened for the reception of patients, stands on a plateau at Mile End, about two miles to the north of the town of Colchester, but within that ancient borough. The institution may be easily recognised by the visitor travelling northwards from the town, for one of the first things to meet the eye is the huge water tower, which rises nearly 100 feet above the ground level. The work of erection has been proceeding for six years, and although the main structure has been completed, it is anticipated that workmen will be engaged on the site for many months to come. With a view to obtaining some particulars of this great building, a representative of the *Local Government Journal* visited Colchester, where he was received by Mr. W. H. Town, one of the architects, who courteously supplied him with all the information required. Our representative was conducted over the buildings by the Clerk of the Works, Mr. G. C. Hooper, and by the Resident Engineer, Mr. H. J. Beeching,



and both gentlemen explained the various features and appliances which have been provided with the view of obtaining economy with efficiency.

It is estimated that the total cost, including land, buildings, and furniture, will amount to nearly half-a-million. The site, some 300 acres in extent, was purchased by the Essex County Council from the Colchester Borough Council, and is enclosed by oak palings six feet high. It had formed part of the Severall's Estate at Mile End, from which the asylum takes its official name. The boundaries are being laid out and planted with trees and flowering shrubs, which will add greatly to the appearance of the district. A cricket ground has also been prepared. As is generally the case nowadays, architectural beauty has been somewhat sacrificed owing to considerations of economy, but a serviceable, if plain, structure has been erected. The building operations were commenced in 1907 with the foundation contract, and were successfully carried out by Messrs. Chessum and Sons, but not without difficulty, as water was frequently met with during the excavations, especially whilst digging out for the large underground storage tank, which holds some 100,000 gallons of subsoil water. The bottom of this tank is 20 ft. below the surface. The overflow is carried through pipes and discharges into a neighbouring pond. The whole of this foundation work is built of stock brick in cement, and forms a substantial substructure for the superstructure, which has now been completed. There are nearly two miles of subways and creepways for the various heating, lighting, and water supply pipes for the buildings. The surplus earth caused by the excavations was converted into spoil heaps thrown up in various places to screen the detached buildings. These spoil heaps have been planted with shrubs.

#### *The Water Tower.*

The sinking of the borehole for water was carried out by Messrs. C. Isler & Co., of London. The well was sunk to a depth of 400 ft. right into the chalk. By this means an ample supply of good drinking water is obtained; but provision has also been made to draw water from the Colchester Borough Waterworks as an auxiliary supply, which is carried to a tank some 20 ft. above the ground level and placed in the water tower. This supply gravitates to the tank, and in a case of emergency or shortage of the well supply, it can be pumped up into the tank at the top of the water tower, which tank holds some 40,000 gallons and is to be used as a domestic and hydrant supply. Arrangements have also been made for the supply of gas from the Colchester Gas Works for cooking purposes.

#### *The Superstructure.*

The erection of the superstructure was commenced in 1909 by the contractors, Messrs. William King & Son, 3, Vauxhall Bridge Road, London, with Mr. John Childs as their Works Manager, and Mr. G. C. Hooper as Clerk of the Works. Much difficulty was experienced owing to the wet soil and heavy rains, which, with climatic changes, caused serious delay. The main building forms the principal block, and measures some 1,500 ft. from east to west and about 800 ft. from north to south. The main block covers nearly 14 acres of ground. The elevations are carried out in red sand faced bricks from Ipswich and St. Osyth brickyards, and a frieze of white Suffolk bricks with artificial stone cornice executed by the Patent Victoria Stone Co., of Stratford, E. All the window-sills and the whole of the internal staircases are executed in artificial stone. The roofs are covered with best Bangor slating, and the gables are relieved with pebble dash, while other portions of the buildings are treated in rough cast, which gives a pleasing effect in contrast to the enormous expanse of red facing. The Medical Officers' residence, which provides accommodation for three Assistant Officers, has been treated with more freedom of style, with red facings for the ground floor, and with pebble dash over and tiled roof. Provision has also been made for the recreation of the officers, including a billiard-room, tennis lawn, etc.

#### *Accommodation Provided.*

The main building comprises the following wards: East side—Hospital ward for females, 100 beds, and west side, Hospital ward for males, 66 beds. Adjoining

this block is the Sick and Infirm Ward for females, 146 beds, and that for males, 100 beds. Attached to this, is the Acute No. 1 Ward with 88 beds, and on the west side is a similar ward for males containing 70 beds. The Acute No. 2 Ward for females with 50 beds is on the east side, and on the west side is a similar ward for males with 42 beds. Situated in the north-east corner will be found the Epileptic Wards with accommodation for 108 females, while in the north-west corner accommodation is provided for 104 male epileptics. Within the Courts are found the Working Patients' Wards, divided into two separate wards of 60 each, on the female and male sides respectively, making a total accommodation for 1,114 inmates in the main building. The inmates will be served by 40 nurses, 38 attendants, and 21 servants, or 99 officers in all.

#### *Detached Buildings.*

The figures given above are exclusive of the accommodation provided by the detached buildings which are nearing completion. The detached buildings comprise the following :—

Entrance Gate and Lodge.

Weigh House and Bridge.

Engineer's House.

Medical Superintendent's House.

Acute or Observation Blocks for 50 males and 50 females.

Private Patients' Block for 50 beds, 25 male and 25 females; with additional wings for a further 50 patients.

Idiot Children's Block, providing 50 beds, 21 boys and 29 girls.

Consumptive Block, 20 beds, 10 male and 10 female.

Infectious Hospital for 6 beds, 3 for each sex.

Nurses' Home, about 36 beds.

Attendant's Recreation Hall and bedrooms, 20 beds.

Male and Female Blocks attached to main building, with accommodation for 108 males and 104 females.

Detached Block for working patients, 50 males and 62 females, and eight villas with accommodation for 35 patients each.

These, together with improvements to the existing farm buildings, new cow-house for 40 cows, other buildings and piggeries, and provision for future extension of the farm buildings, when completed will accommodate about 2,000 patients.

#### *Points of Interest.*

In the courts immediately behind the hospital are the Pathological Museum, Photo Studio, and Surgery, where research work can be carried on, and adjoining is the dispensary. The whole of the wards are connected with each other by covered ways with subways under them. In these subways the hydrant mains, heating and hot water pipes, electric light cables, gas mains, etc., are placed. The system of heating the wards and buildings is generally by open fire-places and radiators with forced circulation of hot water. There are complete communicating passages under cover, these passages forming rectangular courts. Each ward has two fireproof staircases. The recreation hall is centrally placed, and is 120 ft. long exclusive of stage space, and 60 ft. wide. It is well lighted, and contains seating accommodation for 1,000 persons. The floor is of pitch pine. The stage is 24 ft. deep and 60 ft. wide, with segmented arched opening to the proscenium, 30 ft. wide. The kitchen and sculleries are fitted up in the very latest style for a modern asylum, and the apparatus provided is capable of cooking sufficient food for the whole establishment when fully occupied. There are also stores and larders, and the general steward's store is a building 100 ft. by 40 ft. with basement and gallery capable of accommodating all the goods required for the whole of the Asylum. The visiting rooms for interviewing patients are placed

near the front offices, the latter forming the centre and chief block on the north front. These buildings contain offices for the Medical Superintendent (Dr. Robert Turnbull), the Asylum Clerk (Mr. Overend), and other administrative officers. The first floor is reserved for the use of the Asylum Committee. The engineering arrangements are of the most modern character. The boiler house is situated at the north-west corner of the main building. The boiler house is fitted with five Economic Boilers by Paxman's, of Colchester, and there is room for a further boiler. The engine-room, which adjoins, is 50 ft. by 36 ft., and the walls are constructed in white glazed bricks, while the floors are tiled. There are three engines, dynamos and switchboard. The calorifier room, engineer's shop, smithy, pump-room and store, are all practically part of the boiler-house block.

The circuits are wired on the "three wire" system. It is interesting to note that the whole building is heated by the exhaust steam from the engines. An ingenious device was shown in the bathroom with reference to the regulation of the hot water. The device is called a "mingler," and is made by Messrs. Emanuel and Sons, of High Street, Manchester. Whatever temperature the doctor fixes for the bath of a patient can be regulated to a nicety by the engineer, and no matter how much the hot water tap may be turned on, it would be impossible for a patient to be scalded. The workshops are situated between the front offices and boiler-house block, and comprise upholsterers', tailors', cobblers', painters', carpenters', and plumbers' shops. The bakery is on the west side of the stores yard, and the laundry is situated on the female side, and in the court between the front offices and north-east covered way. It is being fitted up with all the latest appliances. The general internal finish of the patients' wards is as follows: Day rooms, pitch pine floors; dormitories, Columbian pine floors, plastered walls and ceilings, dado, and picture rails, white ceilings, friezes, and coloured walls, stained woodwork, fireproof ceilings throughout to the first floor, the landings and passages of the first floor being also of fireproof construction.

The work has been executed by the undermentioned firms:

Foundations.—Messrs. Chessum & Son.

Superstructure.—Messrs. King & Son.

Well-making.—Messrs. C. Isler & Co.

Heating and Ventilation.—Messrs. Dargue, Griffiths & Co.

Electric Lighting.—British Thomson Houston Co.; Messrs. Aiton & Co.;

Messrs. H. J. Cash & Co.; and Messrs. Maudsley & Co.

Fittings.—Laundry: Messrs. Bradford & Co. Kitchen: Messrs. G. N. Haden & Son. Bakery: Messrs. Carnelly & Heaton.

Locks and Furniture.—Messrs. Carter & Aynsley.

Lightning Conductors.—Messrs. Dixon, Corbett & Newall.

The consulting Engineers for the electrical work are Messrs. Hawtayne & Zeden, 9, Queen Street Place, E.C.; and the Quantity Surveyors are Messrs. R. L. Curtis & Son, 11 and 12, Finsbury Square, E.C. Mr. F. Whitmore, the County Architect, and Mr. W. H. Town, A.R.I.B.A., are the joint Architects.

It is probably not too much to say that for a considerable time to come this new asylum is likely to be accepted as a model by asylum authorities in connection with the erection of other institutions of the kind. The architects have overcome the difficulties of planning and designing in a manner which is highly creditable and satisfactory, and are especially to be congratulated on the success with which they have coped with the conditions imposed by the necessity of regarding considerations of economy without sacrificing the principles of administrative efficiency. The result is an institution thoroughly well adapted to the purposes for which it is intended, particularly the promotion of the comfort and general well-being of the patients, in which respect it may be said that nothing has been left undone. The total outlay is admittedly large, but the policy and enterprise of the Visiting Committee will be amply justified by the need that exists and the way in which that need has now been met.

#### *Some of the Contracts.*

The heating and hot water supply has been designed and installed by Messrs. Dargue, Griffiths & Co., Ltd., of Liverpool and London, pioneers of centralised





heating, on their well-known "D.G. Economic Centralised" system, which, it is claimed, by utilizing the exhaust steam from the electric sets, etc., practically does this section of the work for nothing, no fuel being necessary in addition to that required for the other engineering plants throughout the institution. The system is low-pressure hot water, the circulations being accelerated. It is stated that until Messrs. Dargue, Griffiths & Co. introduced their scheme it was considered impossible to circulate hot water over large areas, but here from a central station there are ring mains approximately a mile in length doing the work economically and efficiently. The heating in the wards generally is by radiators, over which fresh air is passed, and, in the cold weather, warmed before being delivered into the rooms. Every section of the apparatus is under absolute control, so that the heat of any portion can be independently regulated or shut off without interfering with the working of the remainder. Messrs. Dargue, Griffiths & Co. also installed the cold water and fire hydrants, pumps, and plant.

The bakery department is fitted with all the latest appliances and improvements appertaining to this class of work, and consists of two of Heaton's patent single-deck steampipe drawplate ovens with patent small furnaces and secondary combustion chambers, whereby a considerable saving in fuel consumption is obtained. Although the iron plates on which the bread is baked will each hold over 200 2-lb. loaves, which are baked in 45 minutes, yet the furnace is so small that it is operated from one small firing door, only 14 inches wide. Water well ashpits are provided beneath the firebars. As the furnaces of these ovens are entirely separate from the oven chambers no fumes or gases of any kind enter the chambers, and consequently the bread is baked under the best possible hygienic conditions. As all the bread enters and comes out of the ovens at the same time every loaf retains its due proportion of moisture,—a point much appreciated by practical bakers; and all kinds of pastry, confectionery, puddings and joints of meat can also be cooked to perfection in this type of oven. The dough-making plant consists of a 1½ sack double-blade kneading and mixing machine with automatic and hand-tilting arrangement. This machine will thoroughly knead a 600-lb. batch of dough in five to six minutes. The flour before entering this machine is passed through a rotary sifter; for gauging the quantity and temperature of the water required, a water measuring and tempering tank is provided, and in addition there is the usual sack hoist, with all the necessary shafting, pulleys, etc. The whole is driven by an electric motor fixed in the adjoining motor-room. There is also a good assortment of dough troughs on castors, moulding tables and movable bread trucks for conveying therein the bread to the fixed bread racks in the adjoining spacious bread-room. All the ovens, machinery and fittings have been supplied by Mr. Henry Heaton, of Leytonstone.

The bedsteads have been supplied by Messrs. John and Joseph Taunton, Ltd., of Birmingham, and incorporate the improvements and suggestions of the leading experts in the country. Special attention has been paid to the character of the enamel used in all Messrs. Taunton's bedsteads for institutional work; and it is claimed that the exhaustive experiments carried out under the direction of Dr. Bostock Hill, late City Analyst for Birmingham, tend to prove that Taunton's anti-rust process enables the enamel to withstand the action not only of severe weather and damp, but also of certain chemicals, such as acids with chlorine. The same authority, it is stated, also describes the enamel as being singularly adhesive and non-brittle—a very important consideration.

[As regards the completed asylum, the plan reproduced requires one or two alterations. The nurses' home has been brought further south to the border of the laundry drying ground in order to obtain access from the corridor near the female epileptic ward. The quarters for the matron and assistant matron have been built off the female north to south administrative corridor and project into the nurses' garden outside the messroom. Accommodation for head nurses has been found by an addition to the nurses' messroom block.—ED.]

## PRESENTATION TO DR. H. HAYES NEWINGTON.

The portrait subscribed for by members of the Medico-Psychological Association to be presented to Dr. Hayes Newington, in commemoration of his forty years' connection with the Medico-Psychological Association and his long tenure of the office of Treasurer, has been painted by Mr. W. W. Oules, R.A., and will be exhibited at the Royal Academy, Burlington House, this summer. It is hoped that members of the Association will take the opportunity of seeing the portrait while it is on exhibition there.

## OBITUARY.

STEPHEN G. LONGWORTH, L.R.C.P.I., L.R.C.S.I. & L.M.

We have to record the death (suddenly from heart disease) of Dr. S. G. Longworth at the District Asylum, Melton, Suffolk, where he was Senior Assistant Medical Officer. He died at the early age of 36 years, and his loss will be keenly felt by all who were acquainted with him. He was educated at Westminster School and afterwards in Dublin.

Dr. Whitwell, under whom he worked for some years, sends us the following appreciation: "He entered the speciality under Dr. Conolly Norman at the Richmond Asylum, Dublin, and from there came to Melton, where he acted as Senior Assistant Medical Officer for a period of fifteen years. During that period he showed himself to be an unobtrusive but keen and earnest worker, imbued with the highest ideals, upright in all his dealings, kind, thoughtful and skilful in his professional work, with a high sense of loyalty, and he was much beloved by all who knew him. In him this institution has lost a very able officer, and I myself in common with all here mourn the loss of a good friend, who, in spite of increasing physical disabilities, put extraordinary energy in his work to the very last."

## NOTICES BY THE REGISTRAR.

The next examinations for the Nursing Certificate will be held as follows: Preliminary Examination—May 5th, 1913. Final Examination—May 12th, 1913.

## EXAMINATION FOR NURSING CERTIFICATE, NOVEMBER, 1912.

## (1) Preliminary Examination.

1. Enumerate the various glands connected with the function of digestion, mentioning the special action of the secretion of each on the different kinds of food.
2. Describe the structure and functions of fat.
3. What structures form the wall of the thorax? Mention the principal organs contained in this cavity, and describe their relative position.
4. Describe shortly, without detail, the general composition of milk, cream, butter, cheese, and margarine. What happens to the constituents when the last four are formed?
5. What is ordinary household dust? Why should it be got rid of, and how?
6. Describe the proper method of (a) applying a blister and dressing; (b) giving an inhalation; (c) administering a sedative enema.
7. Describe fully the immediate treatment you would adopt in the case of a patient suffering from a severe fit of epilepsy.
8. What would you do in the case of fire occurring in an asylum day-room at night?

(2) *Final Examination.*

1. What are the essential units of the nervous system? What is meant by reflex, automatic, and voluntary actions respectively?
2. What are the leading features of mental enfeeblement? In what insane conditions is it a prominent symptom?
3. Define an insane delusion. What delusions are of most importance from the nursing point of view? Give reasons for your opinion.
4. Describe the mental disorders commonly met with in connection with epilepsy.
5. What are the usual causes of persistent refusal of food in insane patients?
6. What immediate treatment would you adopt in the case of a patient who had swallowed a quantity of turpentine?
7. Fully describe the process of putting to bed at night an able-bodied insane patient.
8. In a case of sleeplessness what are the chief points to attend to?

## PRELIMINARY EXAMINATION, NOVEMBER, 1912.

*List of Successful Candidates.*

*Valkenberg, South Africa.*—Katherine M. de Villiers, Maline E. O'Driscoll, Thomas Barlow, Walter J. Bush.  
*Grahamstown, South Africa.*—Joseph C. Cherry, Norman L. Dubber, Johannes N. van de Venter.  
*Pretoria, South Africa.*—Margaretha A. W. Waber, Johanna Kat, Nellie Hall, Alice M. Upton, Jeremia Bezuidenhout, Ernest Norman, Maud H. Clifton, Margaretha de Ruiter, Alice Abernathy.  
*Devon County.*—Grace E. Green.  
*Kent County, Maidstone.*—Harry W. G. Russell, Percy Dane, Edith M. Nuttall, Florence A. Cook.  
*Yorks, Wakefield.*—Harold Hardwicke, Florence Ballard, Bertrand Harrison.  
*Leicester Borough.*—Lilian G. Ball.  
*London, Colney Hatch.*—Florence B. Tulley.  
*Salop County.*—Exley Rhodes, Sidney G. Oakley.  
*Staffs County, Cheddleton.*—Geraldine B. Bowen, Agnete Moller, Georgina Baker, Edith Williams, Gertrude Nicoll.  
*Warwick County.*—Annie Huband.  
*Birmingham, Rubery Hill.*—Fred G. Heathcote, Ruth Goodall.  
*City of London.*—Constance A. Miller, Nellie Davies, Doris F. Mason.  
*Croydon Mental Hospital.*—Charles B. Tomblin.  
*Derby Borough.*—John H. Widdowson, Alfred W. Potter.  
*Norwich City.*—Lilian A. Ward, Lottie L. Allgood, William T. Turner.  
*Portsmouth Borough.*—Frederick Glew.  
*Bethlem Royal Hospital.*—Alice M. Dawson, Alfred F. Jeffery.  
*Camberwell House.*—Reginald H. Page, Florence K. Harding, Ena S. Gourlay, Eileen D. Morris, Helen M. Dixon, Ethel H. Stannard.  
*York Retreat.*—Hilda Thorpe, Jessamine B. Oakhill, Emily Bailey, Catherine M. Jones, Jeannie McWhirter.  
*St. Luke's Hospital.*—Alice Shaw.  
*Warneford, Oxford.*—Dora E. Boness, Jessie C. Allaway, Lucy E. Faulkner, Sarah M. Bedwell, Florence E. Butlin, Margaret A. Smith.  
*Aberdeen District.*—Susan P. Allan, Jeannie G. Henderson.  
*Aberdeen Royal.*—Annie Robb, Margaret Spalding, James Chalmers.  
*Edinburgh Royal.*—Margaret Kilburn, John Morgan, Florence Stone, Annie Sanderson, Margaret Watt, Marion Toddie.  
*Edinburgh Royal (Craig House).*—James Shaw, Joan Blyth, Elizabeth Greig, Agnes M. Forrest, Annie S. Davie.  
*Edinburgh District, Bangour Village.*—Jessie Baillie, Ada Robinson, Sophie Scott, Teresa Macneill, Jean Jardine.  
*Glasgow, Gartloch.*—Minnie Howie, Christina Russell, Margaret Tinto, Mary Bell, Samuel McClelland, Margaret Reid, Annie Macphail, Fanny Stallard, John Ann Baird.



*Glasgow, Woodilee.*—Elizabeth Mackenzie, Anna Caldecott, Elizabeth Stevenson, Helen Matthew, Mary Fletcher, Mary Shaw, Mabel Ferguson, Helen Ross, Mary McNabola, Elizabeth Beaddie, Jessie Howie, Isabella Findlay, Samuel Mitchell, Archibald Browne, John Diamond, Neil Bradley, Charles Mackie, Grace Devlin, Marie Cameron.

*Interness District.*—Gwendoline Everatt, Margaret McLeod, Catherine Douglas, Jessie Stevenson, Jessie Skinner, Isabella Mackenzie, Christina Cameron.

*Fife and Kinross.*—Susan Sime, Mary Fraser, Mary Beaton.

*Lanark District.*—Mary Neill, Alice Mackie, Frances M. Duncan, Georgina Prentice.

*Roxburgh District.*—Christina McIntyre.

*Stirling District.*—Elizabeth Findlay, Hilda Taylor, Annie Carroll, Thomasina Donald, Elizabeth Gilchrist, Helen Brodie, Agnes McCredie, Jessie Donaldson.

*Londonderry District.*—Catherine Morrison, Ellen N. Logue, Sarah McElwee.

*Mullingar District.*—Jane Maguire, Christopher Scally.

*Richmond, Dublin.*—Constance Bunn.

#### FINAL EXAMINATION.

*Valkenberg, South Africa.*—Magdalena C. Groenewald, Rhoda Austin.

*Robben Island, South Africa.*—Frederick J. McArthur.

*Grahamstown, South Africa.*—Sidney H. Harris, Edward Curtis, Agnes Trautmann.

*Pretoria, South Africa.*—Ryntye Zagt, Edith O'Carroll.

*Fort Beaufort, South Africa.*—Amy M. Neilson.

*Brecon and Radnor.*—Francis Protheroe.

*Brighton County Borough.*—Daisy Eldridge, Eilen Levett, Laurence White.

*Bucks County.*—William J. Brain.

*Derby County.*—George Bosworth, Maurice Knott.

*Essex and Colchester.*—Lizzie E. Brown.

*Glamorgan County.*—Albert Osborne, Andrew Meldrum, Rachel Evans, James Morgan, Emma Tyler, Alice Thomas.

*Kent County, Maidstone.*—Annie L. Bacon.

*Lancaster County.*—Phyllis M. Bowles, Annie Campion, John Gleave.

*Leavesden Asylum.*—Robert Coxhill, Arthur L. Ware, Frederick Baker, George Filby, Seth Denchfield, Leonard Luck, Gertrude Keisail, Edith Chandler, Winifred Goslin.

*City of London.*—Jessie Keeping, Bella E. Keeping.

*London County, Colney Hatch.*—William G. Wright, Gertrude Simmonds (Bexley).

*North Wales, Cos.*—Mollie Jones.

*Norfolk County.*—Lottie Shreeve, Mary Chenery.

*Oxford County.*—Ernest A. Surman.

*Staffs County, Cheddleton.*—Margaret M. Carroll.

*Suffolk District.*—Henry Simmonds, Arthur Webb.

*Surrey County, Netherne.*—Henry W. Eaton, Elizabeth Thompson.

*Surrey County, Brookwood.*—Dorothy Terry.

*East Sussex.*—Elizabeth Brazil, Rose M. Croft, Charles Mansfield, Eleanor Wherry.

*Monmouth Asylum.*—Sarah A. Kinsey.

*West Sussex.*—Ernest Mason, Gladys Price, Mary Connolly, Edith Freeman, Miriam Luker.

*Birmingham, Rubery Hill.*—Dorcas Hayward, Florence Warner.

*Derby Borough.*—Helena Harrison, Adrian Buxton.

*Holloway Sanatorium.*—Ethel Bradbury, Edith Pearce.

*Leicester Borough.*—Edward Coaton, Arthur Chapman.

*Norwich City.*—Edwin Wallis, Edward Martin.

*Bethlem Royal Hospital.*—Ellen Crutchfield, Kate Winter, Beatrice Cousins, George Massingham.

*Camberwell House.*—Agnes Haywood, Elizabeth Jackson, Laura Searle, Frederica Haddock, Emily Ford, William Beach, Gertrude Bott.

*Moorcroft House.*—Madeline Puckle, Ada Franklin.

*St. Luke's Hospital.*—Florence H. Foster.

*York, The Retreat.*—Vera Blakoe, Laura Needs, Dorothy Finnemore, Fred Hudson, Norman Brook, Lavinia Brooks, Agnes Angus, Jessie Brown, Grace Charter.

*York City.*—Walter Falkingham.

*Wonford House, Exeter.*—Emily Nicholls, Hedley Downing, Lucy Bevan, Charlotte McDowall, Walter Ward, Charlotte Hunt.

*Warwick County.*—Mary A. Tiernan.

*Ayr District.*—Margaret Kelly, Nettie McCreath, Mary McLean, Maggie Stuart, Peter Knox.

*Aberdeen Royal.*—Margaret Gordon, Lizzie Doverty, Helen Adie, Williamina Webster.

*Aberdeen District.*—Jeanie Robertson.

*Crichton Royal.*—Margaret Adams, Daniel Neill, William Weston, Donald McInnes, James Peat, Ida Warnock, Jeannie McReynolds, Sarah McKinstry, James McShane.

*Edinburgh Royal.*—Ann G. Black, Agnes Mackie.

*Edinburgh Royal (Craig House.)*—Janet Thorn, Mary Gordon, James Henderson, Catherine Wilson, Agnes Cameron, Sarah Clague, Julia Sinclair, Grace Craig.

*Edinburgh District, Bangour Village.*—Enid Calder, Mary E. Ritchie, Jessie C. Grant, Elizabeth Young, Mary Hamilton.

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*Glasgow, Woodilee.*—Robina Mathieson, Jeanie K. Gray, Alexander Taylor, Samuel Cain.

*Lanark District.*—Jessie Maltman, May Gregory, Margaret Gardner, Kate Morris, Jean H. Marshall.

*Paisley, Hawkhead.*—Elizabeth Laurie, Isabella Blaikie.

*Roxburgh District.*—Euphemia McBean, Philippa Nasmyth, Robert Cameron.

*Stirling District.*—James Craib, Jeannie Brodie, William Ross, Alfred Peacock.

*Mullingar District.*—John Maher.

*Portrane, Dublin.*—Katie Gaffney, John Ryan, John Doyle, Frances Valentine.

*Bloomfield House.*—Mary A. Mitchell.

*St. Patrick's Hospital.*—Lizzie Molyneux, Leonard O'Shea.

#### NOTICES OF MEETINGS.

*Quarterly Meeting.*—The next meeting will be held in London on Tuesday, May 27th, 1913.

*Irish Division.*—The Summer meeting will be held on Thursday, July 3rd, 1913.



# THE JOURNAL OF MENTAL SCIENCE

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## Part I.—Original Articles.

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*The Spread of Infection by the Ascending Lymph Stream of Nerves from Peripheral Inflammatory Foci to the Central Nervous System.* By Drs. ORR, ROWS, and STEPHENSON. (From the Laboratories of Prestwich and Lancaster Asylums.)

SINCE experimental observation has established the fact that inflammation of the central nervous system is easily induced by infection of the ascending lymph stream of nerves, it would seem that the views regarding the ætiology of inflammatory lesions of the cerebro-spinal axis must undergo considerable revision, and that an insufficient degree of importance has so far been attributed to the rôle and wide-reaching results of lymphogenous infection. That the spinal cord and brain are exposed to infection along this path cannot be doubted. This view is based upon both clinical and experimental data ; and its value in connection with the elucidation of the ætiology of some nervous lesions may now receive more recognition, seeing that the range of application of the hæmatogenous theory is becoming more limited. To take one example : acute anterior poliomyelitis is no longer regarded by neurologists as a hæmatogenous infection of the spinal cord, with a special selectivity for the motor nuclei. Recent work shows conclusively that the inflammatory phenomena can only be the result of a lymphogenous infection.

The results of experimental work (1), (2), (3), have shown that infection of the lymph system of peripheral nerves causes an ascending neuritis which spreads upwards to pass over the posterior root ganglia and along the spinal roots to the cord. The tissue which shows the greatest degree of inflammation is the loose areolar tissue covering the perineurium, the ganglion capsule, and the dura mater. The adventitial elements of the veins and capillaries contribute very largely to the inflammatory exudate. Within the cord the inflammation diminishes in degree from without inwards.

The clinical cases in this present paper form a direct continuation of experiments carried out on animals to demonstrate the facility with which infection spreads along the lymph channels of nerves to the spinal cord. They in no way widen the scope of the original research; they merely apply to the human subject the phenomena previously observed, and the principles derived from that research. It will be seen that not only is the same path of infection demonstrable, but that there is a perfect similarity in the type of reaction which varies with the potency of the irritant.

*CASE 1: Carcinoma of the tongue with suppuration in the tissues below the chin.*—In this case an operation on the tongue had been performed before the patient was admitted into the asylum. Soon after admission an abscess developed in the submaxillary region, and was opened on July 15th, 1912; another incision was required a month later. The patient died on November 24th, 1912. At the *post-mortem* examination all the tissues in the floor of the mouth were found to be bound together by the malignant growth and the accompanying inflammation. A considerable quantity of pus was present in the subcutaneous tissues and amongst the muscles of the neck. There was no gross lesion of the brain; the pia mater was congested, slightly thickened, and, over the pons Varolii, had a distinctly yellow appearance. Broncho-pneumonia was present in the right lung.

The tissues examined in this case included the twelfth, seventh, and fifth cranial nerves, *i.e.*, nerves leading from the septic focus to the central nervous system; the pons Varolii and the medulla oblongata; the spinal cord, together with the nerves and the posterior root ganglia connected with its cervical

portion. The part of the hypoglossal nerve was taken from near the angle of the jaw, and that of the facial nerve from just outside the mastoid foramen. In both these the connective-tissue cells of the epi- and perineurium and the cells of the adventitial sheath of the veins and capillaries were reacting actively to the irritant derived from the septic focus under the chin. Considerable collections of cells were present around the vessels and along the trabeculae of the sheath of the nerves. Some of these had a rounded or indented nucleus containing little chromatin and a faintly stained cell-body; mixed with these were small cells with deeply stained nuclei and a small amount of well-stained protoplasm around them. In some of the capillaries the endothelial cells were much enlarged and rounded, and projected into the lumen of the vessel. Within the nerves the reaction was much less intense: the cells of the adventitial sheath of the veins and capillaries were increased in number and were swollen; in some areas typical plasma-cells were seen. The neurilemma cells were swollen. A portion of the seventh nerve which included the geniculate ganglion was examined also. Here the inflammatory condition was less acute. There was some proliferation of the cells of the epi- and perineurium and of the adventitial sheath of the veins and capillaries: the capsular cells around the nerve-cells also showed signs of irritation.

The most intense inflammatory reaction in this case was found around the fifth nerves outside the dura mater and in the Gasserian ganglia. The cells of the sheath of the nerves and of the perineurium surrounding the nerve-bundles exhibited a remarkable proliferative activity, and large collections of reaction cells had appeared (Fig. 1). Many of these were of the polyblast type, with the rounded or indented nucleus containing little chromatin and a faintly stained cell-body. Mixed with these were small cells with a rounded deeply-stained nucleus surrounded by a very little well-stained protoplasm. Many stages between these two forms of cells could be observed. In some instances the protoplasm of the cells had assumed a reticulate structure, and many contained distinct refractile purple granules. Frequently the cell-membrane had burst and the granules were escaping. They were especially numerous where hæmorrhage had occurred and blood-pigment was present. It is probable that their appearance was due to the fact that they

had acted as scavengers, and had imbibed some of the blood-pigment. It is possible that these granules correspond to the granules of hæmosiderin which Bonfiglio has found in plasmacytes in various pathological conditions of the central nervous system.

The reaction within the Gasserian ganglia was less than that around the nerves outside the dura mater, but it was still considerable around the bundles of the nerve as they entered the ganglia. Polyblasts were less in evidence, and large rounded cells, with a darkly stained nucleus and much well-stained protoplasm, were the most prominent feature. These cells closely resembled the pseudoplasma-cells described by Pappadia as being numerous in acute inflammatory conditions, and as they were associated with polyblasts, and with small cells having a darkly stained nucleus and very little protoplasm around it, it is probable that they owed their origin, not to mononuclear leucocytes, as suggested by this author, but to the proliferating connective tissue and adventitial cells, as did the cells amongst which they were lying. Amongst the tissues of the ganglia many of the reaction cells exhibited the characters of plasma-cells. The capsular cells around the nerve-cells were proliferating. The nerve-cells themselves showed various stages of injury—coagulation necrosis and homogeneous atrophy of the nucleus were seen frequently. In other nerve-cells the chromophile elements had disappeared and neuronophagy had commenced.

The degree of the irritation in the pia mater over the pons Varolii was much less than that in the structures already described. Fig. 2*a* shows an infiltration of the membrane with small round cells, some of them possessing the characters of plasma-cells. The irritation extended from the pia mater along the adventitial sheath of the vessel as it passed into the pons. This result, produced by toxins derived from the suppurating focus under the chin, which had reached the pons by ascending along the fifth nerve, resembles very closely the condition produced experimentally in animals when an acute inflammatory process had followed the bursting of a celloidin capsule, containing a culture of micro-organisms, placed close to an intervertebral foramen. The comparison of the photographs (Figs. 2*a*, 2*b*) <sup>(1)</sup>, one illustrating a condition found in a case of carcinoma of the tongue, with suppuration in the adjacent



FIG. 7.—Fourth dorsal nerve-root piercing dura mater. 1, Dura mater; 2, proliferated neurilemma nuclei; 3, extra-dural tissue.

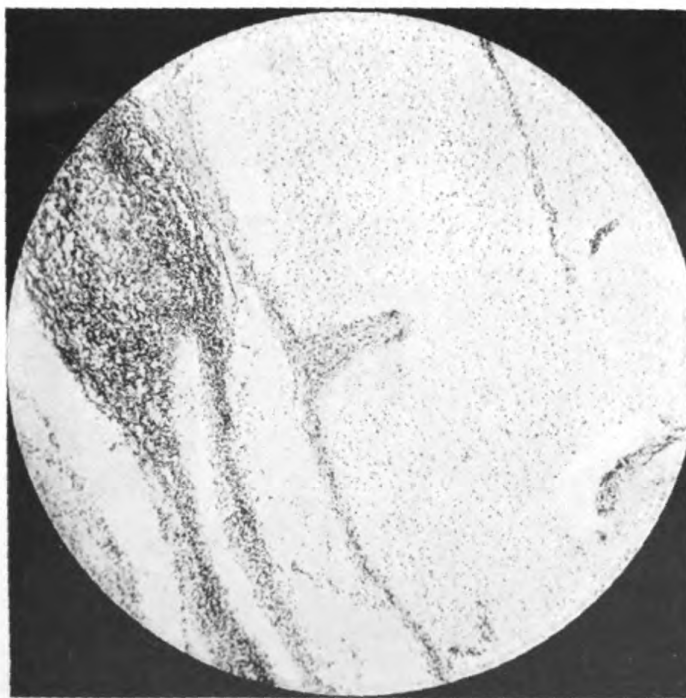


FIG. 9.—Fourth dorsal segment. Infiltration of pia-arachnoid and of the adventitial sheath of the cord vessels.

To illustrate paper by Drs. ORR, ROWS and STEPHENSON.





tissues in the human subject, and the other a condition produced experimentally in a rabbit, is interesting and suggestive. Within the pons the vessels were dilated to a great degree, and in many of them the cells of the adventitial sheath exhibited signs of reaction. Chromatolysis had occurred in many nerve-cells; the neuroglia cells were proliferating.

Examination of the posterior root ganglia and the nerves connected with the cervical portion of the spinal cord demonstrated that the toxins derived from the focus of suppuration had given rise to an intense reaction, which was especially marked in the epidural tissue and at the proximal pole of the posterior root ganglia (Fig. 3). This again corresponded closely to the results obtained by experiments on animals. The reaction inside the dura mater was slight, as compared with that nearer the focus of origin of the irritant. The pia mater was infiltrated by small cells with deeply stained nuclei: some plasma-cells were present. This irritation of the pia mater was most marked in the cervical and upper dorsal regions, and lessened over the lowest segments of the spinal cord. Within the spinal cord the vessels were dilated, and there was some irritation of the cells of their adventitial sheath (Fig. 4).

CASE 2 : *Erysipelas of the face*.—This patient was an old woman who had been in the asylum for many years. On May 26th, 1912, she became very ill; her temperature rose to 104° F. On each side of the nose a red flush appeared, which spread rapidly. The tissues of the face became œdematous, and had the typical appearance of erysipelas. She died on June 1st, 1912. At the *post-mortem* examination it was found that the tissues of the anterior half of the scalp, of the whole of the face and below the chin, were puffy and œdematous; much of the subcutaneous tissue had necrosed, and a pale sanious fluid poured out when an incision was made into the skin. There was no gross lesion of the brain; patches of congestion were present in the pia mater over the frontal and the left temporal regions. Nothing of importance was noticed in the other organs.

The tissues examined in this case were the fifth nerves outside the Gasserian ganglia, the Gasserian ganglia, and the pons Varolii. In the fifth nerves outside the Gasserian ganglia signs of an inflammatory reaction were present in the form of hæmorrhages into the epineurium, and a proliferation of the cells

of the epi- and perineurium, and of the adventitial sheath of the vessels contained in them. This proliferation had led in some areas to large collections of reaction cells. The form of the cells varied from the rounded cell, with a deeply stained nucleus surrounded by a little protoplasm, to cells with a larger paler nucleus and a fairly large cell-body. At the same time there was a large number of cells with a small deeply stained nucleus and a large cell-body containing quantities of refractile purple granules. In many instances the limiting membrane of these cells had broken, and the granules were escaping. They were again especially numerous in the neighbourhood of hæmorrhages. In the sheath of the Gasserian ganglia collections of micro-organisms were found, and accompanying these there was an acute inflammatory reaction with large collections of cells. Amongst these were cells showing various stages of reaction, from the small cell with deeply stained nucleus to the typical polyblast (Fig. 5). Many of the large cells contained purple granules. An inflammatory reaction could be followed between the nerve-bundles passing into the ganglia. Within the ganglia the evidences of irritation were less acute. Proliferation of the connective tissues and of the cells of the adventitial sheath of the vessels was taking place. The capsular cells were more numerous than normal, and in many instances surrounded the nerve-cells in several rows. The nerve-cells exhibited marked chromatolysis, and many nuclei were in a condition of homogeneous atrophy.

In the pia mater covering the pons Varolii the vessels were much dilated, and in some areas the membrane was infiltrated with small round cells having a deeply stained nucleus and only a little protoplasm. Within the pons the vessels were dilated, and the cells of the veins and small vessels showed signs of reaction. Chromatolysis was present in the nerve-cells; the neuroglia cells were proliferating, and some were surrounded by a considerable amount of protoplasm.

CASE 3 was one of *juvenile general paralysis*, who developed bed-sores over the sacrum, right hip, and elbow three weeks prior to death. The sacral bed-sore involved the muscles, which were necrosed. At the *post-mortem* examination, on removing the spinal cord, great excess of cerebro-spinal fluid escaped. The outer surface of the dura mater was inflamed, and there was a small quantity of pus in the lowest portion of the spinal canal.

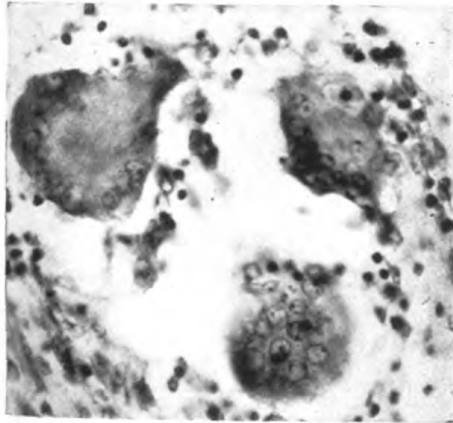


FIG. 8.—Fourth dorsal segment. A group of giant-cells in the spinal pia-arachnoid.



FIG. 10.—Fourth dorsal segment. Infiltration of the adventitial sheath; increase of neuroglial nuclei.

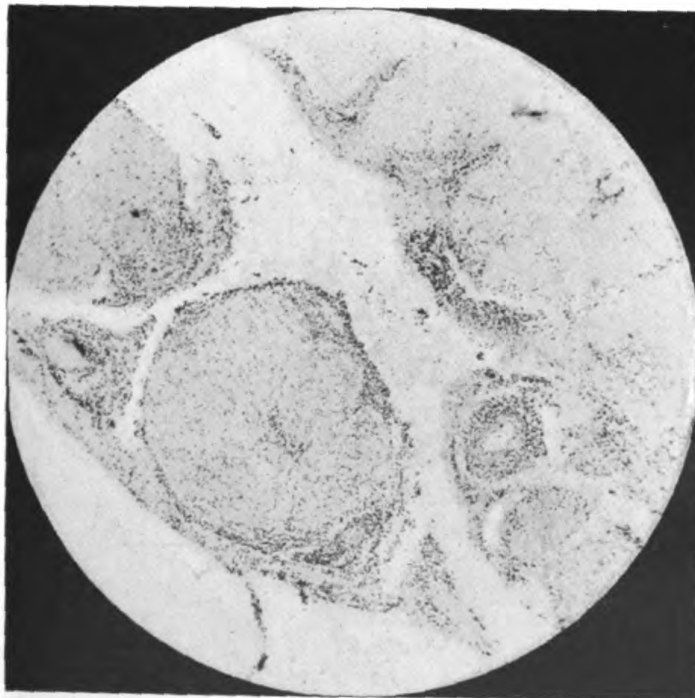


FIG. 11.—Fourth dorsal segment, showing a posterior root bundle. Infiltration of the perineurium.

To illustrate paper by Drs. ORR, ROWS and STEPHENSON.



From this the dura mater and nerve-sheaths had been infected, for micro-organisms could be followed in the epineural tissue to the points at which the nerves pierce the dura. The presence of these organisms had led to an inflammatory reaction most marked in the epidural tissues. Here hæmorrhages were present, and the cells of the trabeculæ of the connective tissue were proliferating actively; in some areas considerable masses of cells had accumulated. The cells were irregular in shape, and differed greatly in staining reaction. Some resembled polyblasts, but cells with a more deeply stained nucleus and a considerable quantity of protoplasm surrounding it were more numerous. Mixed with these were cells with a deeply stained nucleus and very little protoplasm. Within the dura mater no organisms were seen, but the inflammatory reaction was still very marked. The cells of the perineural sheath were proliferating actively, forming collections of cells, with a rounded nucleus containing much chromatin, and a large cell-body around it (pseudoplasma-cells of Pappadia). Within the nerve and within the posterior root ganglia the reaction was less. The adventitial cells of the small vessels were reacting, and many cells resembling plasma-cells were present. The capsular cells were proliferating, and lay in layers around the degenerating nerve-cells. In the pia mater around the lower segments of the spinal cord there was some infiltration by small round-cells. Within the spinal cord the cells of the adventitial sheath of the small vessels and the neuroglia cells were reacting. These signs of irritation diminished higher up the spinal cord, and in the cervical segments they were very slight.

CASE 4: H. F.— *Case of tubercular nodules of pleura.*

*History.*—He is said to have had a severe attack of "influenza" nine months before admission, and was forgetful and strange in manner for four months. Five weeks before admission he had a "strong fit," followed at an interval of a week by another fit. Had been in bed since. On admission he was feeble and shaky, incoherent and confused, with little idea of time or place, and wandered restlessly about his room. Temperature normal, knee-jerks exaggerated, tongue tremulous, pupils dilated and sluggish, mouth in a septic condition with pyorrhœa alveolaris; there was a trace of albumen in the urine. He vomited brownish fluid on May 27th; his temperature went up to 100° F., and he died the same evening.

The diagnosis made on admission was acute confusion or general paralysis.

*Post-mortem appearances.*—The dura was tensely filled. The pia-arachnoid was thickened and milky; decidedly more adherent than normal. At the base the thickening was most marked; over the left temporal lobe the pia-arachnoid was adherent to the dura. The cerebro-spinal fluid was very scanty. The cerebral convolutions were much flattened. On section the most extreme œdema of white matter was apparent; the ventricles were small, with very granular walls; on the floor of the fourth ventricle the granulations were particularly large. The vessels were a little thickened. In the right pleura there were rows of small hard tumours from  $\frac{1}{8}$  in. to 1 in. in diameter. The larger nodules had softened centres, and contained pus-like material. These nodules occurred in parallel rows in the parietal pleura, also on the pleural surface of the diaphragm, the outer layer of the pericardium, and on the visceral pleura. The lung substance appeared normal.

*Microscopic anatomy.*—One of the tumours in the pleura was examined and found to be composed of fibrous tissue, lymphocytes, connective-tissue cells with large clear nuclei, and giant-cells. No bacilli were found by Ziehl-Nielsen staining.

*Dorsal cord.*—There was proliferation of the endothelial nuclei on the inner surface of the dura mater. The perineurium of the spinal roots and the septa between the nerve-bundles were deeply infiltrated with many lymphocytes, amongst which some plasma-cells were scattered; and there was marked proliferation of the neurilemma nuclei (Fig. 6), which were spindle-shaped, often irregular in contour, and frequently showed degenerative changes. The greatest reaction in the spinal roots occurred where they pierced the dura mater (Fig. 7). The pia-arachnoid was full of lymphocytes (Fig. 9), and plasma-cells occurred to a much less extent. These were not quite typical. The adventitial spaces of the vessels were packed with lymphocytes. A group of three giant-cells lying in the pia-arachnoid is shown in Fig. 8.

Within the cord there was a high degree of adventitial proliferation and infiltration (Fig. 10). Similar changes were present in all the septa passing from the pia-arachnoid into the cord. Two types of reaction-cell were present. One had a faintly staining large clear nucleus, a pale green nuclear mem-

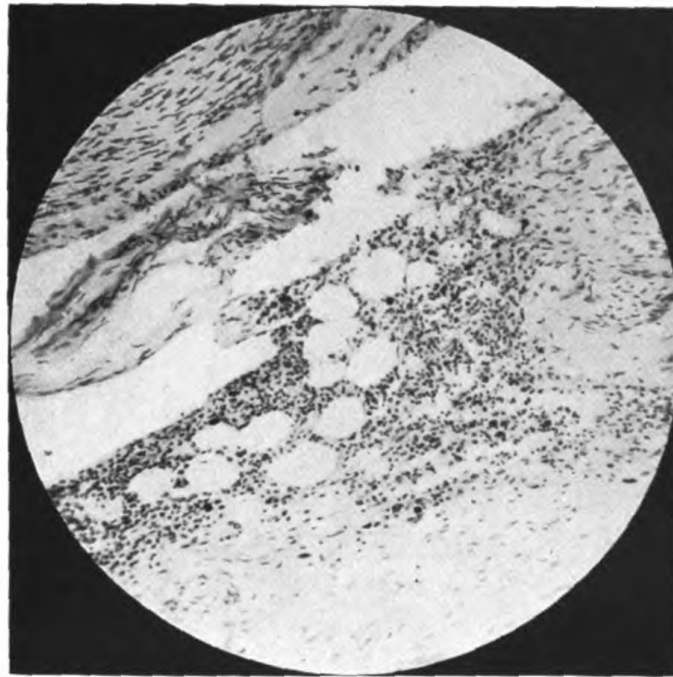


FIG. 1.—Inflammatory reaction in the perineurium of the fifth cranial nerve.



FIG. 2a.—Vessel passing from pia mater into pons Varolii.



FIG. 2b.—Compare with Fig. 2a.

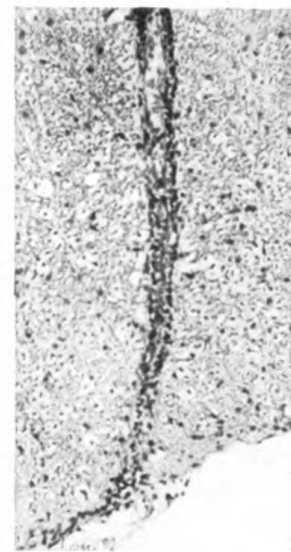


FIG. 2c.—Experimental acute poliomyelitis in monkey. Vessel passing into white matter of cord. Compare with Figs. 2a and b.

To illustrate paper by Drs. ORR, ROWS and STEPHENSON.





brane, and a pink nucleolus, by Pappenheim's method; the other was a typical lymphocyte. Plasma-cells occurred occasionally, and near the cord-margin. There was much neuroglial proliferation. Marchi's method showed considerable myelin degeneration scattered uniformly throughout the cord.

*Cervical region.*—Here there was much less reaction in the pia-arachnoid and in the adventitial sheath of the vessels. The reaction cells were almost all lymphocytes. A few giant-cells occurred. There were a few lymphocytes in the outer sheath of the vessels in the cord-substance, and a slight degree of proliferation of adventitial elements. Occasionally small hæmorrhages were seen in the white matter. The neuroglia was proliferating, and some neuroglial giant-cells occurred in the vicinity of the hæmorrhages.

*Lumbar cord.*—The vessels of the spinal roots showed a slight degree of lymphocytic infiltration of the adventitia. There was little alteration of the peri- and endoneurium. Lymphocytes were numerous in the pia-arachnoid, and there were giant-cells in the adventitial sheath of the vessels. Within the cord the vessels were dilated and engorged. There were some lymphocytes in the external coat of the larger vessels, and the endothelium of the capillaries showed proliferative changes. The neuroglia cells were increased in number. No hæmorrhages were present.

CASE 5: J. P.—*Case of tubercular lumbar abscess.*—On admission he had delusions of grandeur, wealth and ability; these were soon lost, and he became sullen and impulsive; later, he was demented and had lost all idea of time and place. Two years after admission he developed pleurisy at base of left lung, and from this time onward he was considered to be suffering from pulmonary phthisis. In February, 1912, a lumbar abscess was noted, and it was aspirated in May. On June 12th he had several attacks of vomiting, retraction of the head, sluggishly reacting pupils, conjugate deviation of head and eyes to the left, knee-jerks exaggerated, and ankle clonus. He died on June 14th.

*Post-mortem appearances.*—Pia-arachnoid was slightly thickened and opaque, cerebro-spinal fluid much increased and semi-turbid. Brain (1,185 grm.) showed some atrophy of convolutions, grey matter darker than normal, white matter very soft and œdematous. The ventricles were a little enlarged, and

very prominent granulations were present on the ependyma—especially in the fourth ventricle. The vessels appeared normal. The spinal pia-arachnoid was thickened. The vessels were much engorged, and the cord substance very soft. There was an abscess in the right lumbar region—between the lowest rib and ilium ; its exact origin was not determined—no diseased bone was found. The lungs were both firmly adherent to the chest-wall and showed many small hard tubercular masses. The mesenteric glands were enlarged and calcified.

*Microscopic anatomy.*—In the wall of the lumbar abscess there were giant cells and tubercle bacilli present.

*Lumbar cord.*—The spinal roots were practically normal ; nothing unusual was present beyond congestion and dilatation of the vessels. The pia-mater and adventitial spaces were infiltrated with lymphocytes ; a few plasma-cells were present. Some giant-cells were present in the perivascular tissue. There was marked congestion of the vessels in the cord substance, and the adventitia showed a mild degree of proliferation. The neuroglia cells were markedly increased in number ; no hæmorrhages were present.

*Dorsal cord.*—The perineurium of the spinal roots showed a high degree of inflammatory reaction (Fig. 11). The exudate consisted of lymphocytes, proliferated connective-tissue cells, and plasma-cells. Rows of lymphocytes were seen in the septa between the nerve-bundles. The neurilemma nuclei were greatly increased in number, and the vessels were engorged and dilated. The pia-arachnoid was filled with proliferated cells and lymphocytes, as were the adventitial spaces of the vessels. The reaction cells were for the most part lymphocytes, but a considerable number of plasma-cells were present. These were not quite typical, as the nucleus was smaller and darker than normal and the protoplasm was not always vacuolated. Giant-cells occurred in the pia. There was a considerable degree of inflammation in the septa passing from the deep surface of the pia into the cord. The adventitial sheath of the vessels in the cord showed a high degree of proliferation, and its spaces were filled with large clear nuclei or with lymphocytes (Fig. 12). There were some hæmorrhages in the white matter and in the fourth dorsal segment, in the column of Burdach, near the periphery of the cord, there was a small isolated patch of myelitic softening. The neuroglia was proliferated, and Marchi's

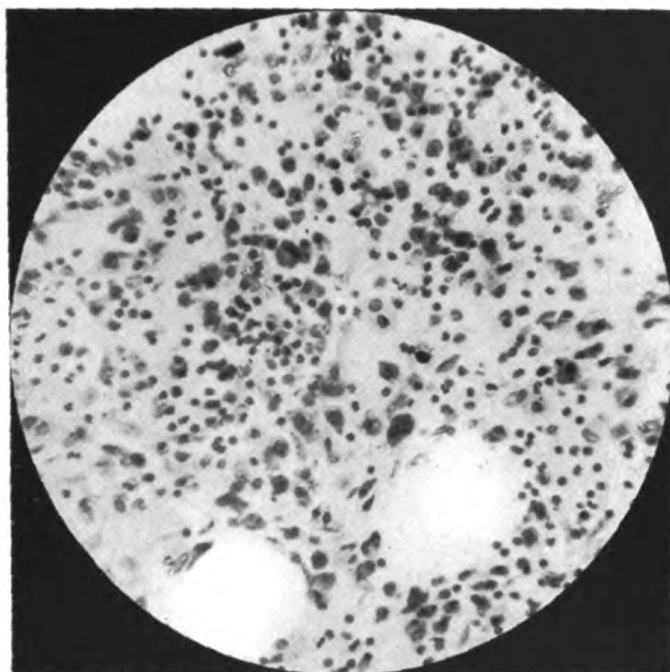


FIG. 5.—Inflammatory reaction of sheath of Gasserian ganglion.

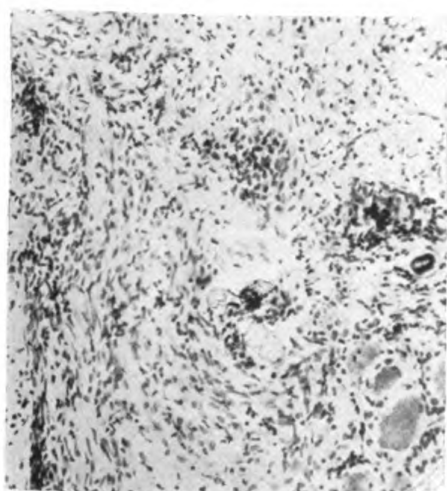


FIG. 3.—Inflammatory reaction at the proximal pole of first cervical posterior root ganglion.



FIG. 6.—Fourth dorsal nerve. Reaction of the peri- and endoneurium proliferation of neurilemma nuclei.



FIG. 4.—Inflammatory reaction in wall of vessel in white matter of seventh cervical segment.



method showed much diffuse degeneration, which was more prominent round the outer portions of the cord. There was a considerable degree of myelin degeneration in the spinal roots also.

*Cervical cord.*—Here the inflammatory reaction in the soft membranes was well marked, but of less degree than in the dorsal region. The perineurium of the spinal roots was also affected, and the cell types were the same as noted in the dorsal region. Giant-cells again occurred in the adventitia of the vessels. Hæmorrhage was present in the spinal roots, and in both grey and white matter of the cord.

*Cerebrum.*—The pia-arachnoid was infiltrated with plasma-cells and lymphocytes. There were no giant-cells. Plasma-cells were also found in the adventitial sheath of the larger vessels of the cortex, but only near the surface; not in the deeper layers. The endothelial nuclei of the capillaries were increased in size and number; no plasma-cells were seen in connection with them.

CASE 6 : C. L.—*Case of cancer of œsophagus.*—In the œsophagus there was a flat-topped growth at the level of the crossing of the left bronchus; some ulceration of the surface of the tumour had occurred, and also of the mucous membrane above the growth. The cervical lymphatic glands were enlarged. The spinal cord appeared to be softened in the cervical region and the vessels were engorged, but there was no evident meningitis. The dura mater was thickened, with recent roughening and loss of polish in the posterior cranial fossa. There was pus under the pia-arachnoid at the posterior border of, and on the upper surface of the cerebellum, and at the tip and along the inferior surface of temporal lobe of the cerebrum. Over the upper part of the frontal and parietal lobes the pia-arachnoid was much thickened. The brain weighed 1,230 gm. Its convolutions showed great atrophy. There was marked œdema of the white matter, and a small softening in the left lenticular nucleus. There was much thickening with calcareous deposit in the large vessels at the base. There was red staining of the heart valves and of the intima of the aorta. The left kidney weighed 70 gm., the right 60 gm.; the capsules were adherent, and the cortex much atrophied.

*Microscopic anatomy.*—The tumour in the œsophagus was an epithelioma; adhering to its surface there were large masses of micro-organisms. Ulceration of the œsophagus was seen above

the level of the epithelioma. There was marked proliferation of tissue-cells in this part of the wall of the œsophagus.

*Cervical cord.*—In the epidural tissue the vessels were greatly congested, and there were extensive hæmorrhages. Many micrococci (Fig. 13) were present, arranged in pairs or short chains, and many degenerate cells, in all probability polymorphonuclear leucocytes. The outer layers of the dura were infiltrated with reaction-cells of the same type (Fig. 14), and there were many cocci. Some mast-cells were present in the dural tissue. The perineurium of the spinal roots was infiltrated with small round-cells possessing a small, deeply staining nucleus. This infiltration extended into the proliferated septa between the nerve-bundles, and in the case of one anterior root there were micrococci, similar to those in the dura, lying amongst the reaction-cells. The neurilemma nuclei were greatly proliferated, as were the capsular cells surrounding the posterior root ganglion nerve-cells (Fig. 15). The latter showed acute chromatolysis, and were almost devoid of chromophile substance.

There were small groups of micrococci in the pia-arachnoid, and many degenerate polymorphonuclear leucocytes, lymphocytes, and proliferated connective-tissue cells. Within the cord there was a high degree of adventitial proliferation. Lymphocytes were few in number, and there were no plasma-cells. The neuroglia was proliferated, and in many the nucleus was swollen, rich in chromatin, while the cell-body was enlarged and possessed branching processes.

*Dorsal cord.*—The dura mater was normal. The pia-arachnoid was infiltrated with polymorphonuclear leucocytes and lymphocytes, the former occurring in greater number than the latter. Here and there were groups of degenerated leucocytes. In the spinal roots the blood-vessels were engorged and there were many polymorphonuclear leucocytes in the perineural sheath. The adventitial and connective-tissue elements were markedly proliferated. The neurilemma was normal. There was much proliferation of the adventitia within the cord, and in places this sheath was infiltrated with lymphocytes. The endothelial cells of the capillaries were swollen and proliferated. Small hæmorrhages were frequently seen. The neuroglial cells, especially round the cord margin, were enlarged, and the cytoplasm was prolonged into branching processes.



FIG. 12.—Fourth dorsal segment: white matter near periphery of cord. Infiltration of adventitia of vessel.

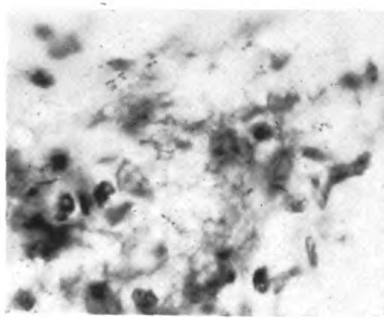


FIG. 13.—High-power view of Fig. 2, showing micrococci.

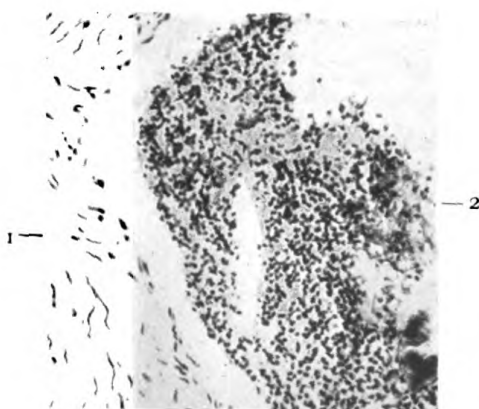


FIG. 14.—Fourth cervical segment: collection of degenerate polymorphs in dilated dural space. 1, Dura mater; 2, polymorphs.

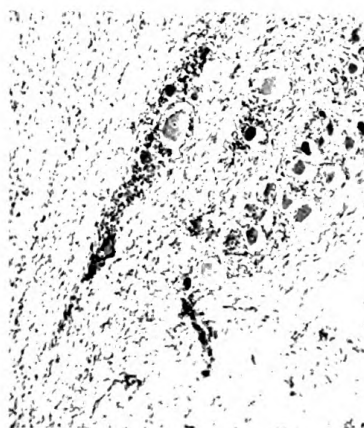


FIG. 15.—Posterior root ganglion: fourth cervical. Showing increase of capsular nuclei round the nerve-cells.

To illustrate paper by Drs. ORR, ROWS and STEPHENSON.

*Adlard & Son, Impr.*





*Lumbar region.*—There were many polymorphonuclear leucocytes in the pia-arachnoid, and lymphocytes were present in somewhat fewer numbers. The vessels were engorged here, and also in the spinal roots, whose fibrous sheaths were filled with both leucocytes and lymphocytes. Here and there in both pia and spinal roots there was a moderate degree of adventitial proliferation. The neurilemma was normal. Within the cord the vessels were engorged, and a very few lymphocytes were present in the adventitial spaces. Small hæmorrhages were present in the grey matter.

*Medulla.*—There were well-marked changes in the pia-arachnoid. Polymorphonuclear leucocytes, polyblasts and micrococci were present. There was proliferation of the adventitial coat of the vessels; the middle coat of the larger vessels showed hyaline thickening, and in some the intima had so increased in thickness as to almost occlude the lumen. Within the medulla there was some adventitial infiltration with lymphocytes, and the endothelium of the capillaries was swollen and proliferated. Some of the vessels of the pia and medulla were filled with polymorphonuclear leucocytes.

*Cerebellum.*—In the subarachnoid space there was a thick inflammatory exudate, composed for the most part of degenerate polymorphonuclear cells. There were no micro-organisms, no polyblasts, and no plasma-cells. In the deeper parts of the sulci the exudate was much less in quantity, and at the bottom the reaction was very slight. There was a slight degree of infiltration of the adventitial sheath with cells which had the appearance of degenerate polymorphonuclear cells.

*Cerebral cortex.*—Here the inflammatory reaction was less. There were scattered hæmorrhages in the cortex, and collections of polymorphonuclear leucocytes in the pia-arachnoid.

CASE 7 : S. C. H—, æt. 34. *General paralysis of the insane* of about two years' duration. Fourteen days previous to death he developed hemisudosis of the right side of the head and neck, which rapidly involved the entire right side of the body. At the same time a right dorsal herpes zoster made its appearance, extending from the angle of the scapula through the axilla to the sternum. There was marked dulness of the base of the right lung. At the *post-mortem* examination all the signs of general paralysis were found, and in addition a right-sided empyema.

*Right intercostal nerves (fourth, fifth, sixth).*—The loose areolar tissues covering the perineurium showed abundant evidence of inflammation. The vessels were congested, and at many points there were hæmorrhages. No thrombi were present. The inflammatory exudate had the same distribution as we have already noted in nerves infected experimentally, and its character was that of a subacute reaction passing on to the chronic stage. There were no polymorphonuclear leucocytes present. There were many small lymphocytes, numerous plasma-cells, and fibroblasts. The endothelial cells lining the trabeculæ had proliferated. Mast-cells were frequently met with.

The large majority of the plasma-cells had undergone repressive changes. They were paler than normal, distorted, and the nucleus was rarely typical. As a rule it was small in size, round, irregular, or kidney-shaped, and stained very darkly. Many of the altered plasma-cells resembled compound granular corpuscles, of which there were many examples. The mast-cells were of varying shape—round, oval, or provided with elongated processes filled with granules—the so-called clasmatocytes of Ranvier. The adventitial elements of the veins and capillaries showed active proliferative changes and plasma-cell formation. Very frequently these cells lay in clusters round the vessels.

There was a considerable degree of inflammatory reaction of the perineurium and its prolongations between the nerve-bundles. The connective-tissue nuclei were swollen, elongated and immature fibroblasts were present. The adventitia of the veins and capillaries had reacted. The neurilemma cells showed signs of irritation. Their nuclei were swollen, round and pale, while the protoplasm at either extremity contained numerous lilac-coloured granules (Reich's corpuscles).

The right fourth dorsal posterior root ganglion was cut longitudinally, and the section stained by Van Gieson's method. A large portion of the ganglion had been destroyed, and this area was occupied by fibrous tissue, some nerve-fibres, and degenerated nerve-cells. Many nerve-cells had disappeared, and in those which remained there were no details of structure recognisable. In this sclerotic area there were no cells of reaction, but in the tissue immediately surrounding it there was a thick band of small-cell infiltration. A similar type of exudation was evident in the layers of the ganglion capsule and around its vessels. Here and there, in the areolar tissue covering the

capsule, in the capsule, and around the nerve-cells, there were small hæmorrhages. In the portion of the ganglion which was not destroyed there were many reaction cells which permeated the tissue between the nerve-cells, and were in some situations heaped up into small isolated clusters.

The posterior root (right fourth dorsal) was cut longitudinally, and some sections were stained by Wolters - Kulschitzky's method, others by hæmatoxylin and eosin. About two-thirds of the medullated fibres were degenerated, and the nuclei of the corresponding neurilemma sheaths showed a high degree of proliferation.

The spinal cord was examined by Marchi's method alone. In the fourth dorsal segment the vessels were dilated and congested. There were small hæmorrhages in the grey matter. In the right root entry zone about two-thirds of the incoming posterior root was degenerated; the degeneration affected the collaterals passing into the grey matter, and also the descending branches of the root fibres. The latter could be followed downwards as far as the sixth dorsal segment. The degenerated root, when traced upwards, gradually decreased in volume, and at the level of the eighth cervical segment formed a narrow band lying against the paramedian septum. It was still recognisable in the third cervical segment, where its most anterior portion lay against the median septum and the remainder along the paramedian septum.

In connection with the above series of cases, it does not seem out of place to mention the cord infection which sometimes follows inflammation of the urinary bladder. Walker (4) has recorded three instances of long-standing chronic cystitis which terminated fatally by acute ascending paralysis of a most malignant type. We have ourselves observed a case of transverse myelitis following chronic bladder trouble, the result of prostatic cancer. Leyden (5) has stated that in a considerable number of cases of so-called reflex paralysis an anatomical affection of the cord has been proved, which begins as a circumscribed myelitis of the lumbar enlargement. He assumed that the infective agent first involved the nerves, in which it induced a progressive neuritis, and passed up to the cord. Another case of great interest is described by Collins and Armour (6). It was that of a boy in whom acute bulbar palsy followed an

attack of mumps. The inflammatory changes in the medulla and pons were very intense and attained the maximum at the level of the sixth nucleus—a fact highly suggestive of the spread of infection along the seventh nerve.

Six of the seven cases on which this communication is based show a diffuse meningo-myelitis of the cerebro-spinal axis, the direct result of, and anatomically continuous with, toxi-infective reaction phenomena of the peripheral nervous system. The condition, therefore, is one of meningo-myelitis secondary to ascending neuritis. In one of our cases, that of herpes zoster, the further spread of infection, which took origin in an empyema, was arrested at the posterior root ganglion, the destruction of which naturally resulted in a zone of degeneration in the posterior columns of the cord.

The inflammatory phenomena in the cerebro-spinal axis and its membranes vary considerably in intensity from case to case, according to the degree of potency of the infective agent ; and the spread of the inflammation is by direct continuity, the mode of extension now recognised as typical of lymphogenous infections. Our cases show that any portion of the central nervous system may be attacked by organisms or toxins passing up the nerves from infective foci, and although the ultimate result of infection may vary according to the quality of the exciting cause, the anatomical path of entrance and spread is a constant one. For example, in Cases 4 and 5 of tubercular infection of the central nervous system the meningo-myelitis has exactly the same distribution as in the other cases, but shows the distinctive quality of the exciting agent in the formation of giant-cells.

It is important to recognise that where an area of infection exists outside the central nervous system and the latter shows no sign of functional or organic disturbance, still a variable degree of inflammation may be present in its substance and membranes (Case 4). It is obvious, therefore, that absorption may take place along the ascending lymph paths of the nerves for a considerable period before the exciting agent is of sufficient potency to cause symptoms. And there is an anatomical reason for the attenuation of noxious agents as they approach the central nervous system. The highly vascular epidural tissue and the dura itself form a very efficient barrier to the inward spread of infection by the lymphogenous path, and neutralise to

a great extent the pathogenicity of organisms and toxins. Thus it is that in the early stages of infection the exciting agent reaches the cord in small quantities or in an attenuated condition and gives rise to almost inappreciable disturbance, but should the defence mechanism of the dura be broken down then acute inflammatory phenomena make their appearance. Cases 1 and 6 show how important a defence mechanism the dura is; one of the most striking features in their morbid anatomy is the marked diminution in the degree of inflammatory reaction amongst the tissues internal to the dura mater. A consideration of the above facts shows us, therefore, that in cases similar to those under discussion the *post-mortem* examination is not complete unless the cord and brain are investigated; for if neglected, many important and suggestive data may escape observation.

It has been shown by experimental infection of the lymph-stream of the nerves and spinal cord that certain structures invariably showed the greatest degree of reaction, and the result of the examination of the above clinical cases coincides with our earlier observations. These structures are the loose areolar tissue covering the sheaths of nerves and the posterior root ganglia, the epidural tissue, and the adventitial elements of the veins and capillaries. The tissues furthest removed from the original toxic source suffer least of all, as do the structures protected by a fibrous sheath; hence the signs of ascending neuritis are less marked within the perineurium of the nerves and in the substance of the posterior root ganglia; while in the spinal cord, medulla, and pons, the degree of reaction diminishes from without inwards. That portion of the cerebro-spinal axis directly connected by nerves with the source of infection exhibits the highest degree of inflammation. Still the signs of meningitis may be very well marked both above and below the point of greatest intensity (Case 6), but the gradual attenuation in potency of the infective agent is shown by the progressive diminution in the degree of myelitic phenomena. While, in the area of primary infection, adventitial inflammation, hæmorrhage, neuroglial hyperplasia, etc., are prominent, the only evidence of myelitis in distant parts may be confined to the presence of a few round cells in the adventitial spaces, and congestion of the vessels.

There are several additional observations in these clinical

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cases which agree entirely with the data derived from experiment. We again find that the adventitial elements proliferate readily under stimulation and contribute largely to the inflammatory exudate. In acute inflammation the neuroglia nucleus and cell body becomes swollen, and assumes an amœboid appearance. There is an entire absence of thrombi, and only in one case in which the inflammatory process was extensive and acute was there any tendency to the local accumulation of leucocytes in the vessels.

With regard to the origin of the cell types which compose the exudate we have nothing to add to our last communication. The same structures react in our clinical cases as in an experimentally induced neuritis and meningo-myelitis; and the morphology of the reaction cells varies with the potency of the irritant. Many of the cell types are atypical, and the forms which they assume naturally vary according to the duration and intensity of the inflammatory process. The regressive changes which they undergo in many instances render their strict classification well nigh impossible.

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- (4) Walker.—*Clinical Society's Transactions*, vol. xxxviii.
- (5) Leyden.—Quoted by Walker.
- (6) Collins and Armour.—*Review of Neurology and Psychiatry*, August, 1912.

(1) Figs. 2a and 2b should be compared with Fig. 2c, from a section kindly lent by Dr. Coupland, of Lancaster, and sent to him by Professor Pettersson, of Stockholm.

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#### *On Attempted Suicide, with an Analysis of 1,000 Consecutive Cases.* By W. NORWOOD EAST, M.D.Lond., Medical Officer, H.M. Prison, Manchester.

A considerable number of men are received annually into Brixton prison remanded, or committed for trial, on a charge of attempted suicide. They are all specially examined as to their mental condition, and a large number of them are remanded for that purpose. From the plentiful clinical material thus

studied these remarks were prepared whilst I was on the medical staff of that prison, and I have to thank the Prison Commissioners for their permission to publish them.

It is, of course, quite impossible to deal in an adequate manner in a paper of this description with so large a subject. But for some time past the notes I have made on these cases—all of whom are males, no females being received at that prison—have been on a definite plan, and only a few of the problems, which attempts at suicide present, have been considered, most attention being paid to the mental state of the accused at the time of the act, and the motives causing it. The notes were chiefly made for the purpose of furnishing the magistrates with mental reports on the accused, or for giving evidence at sessions or assizes, and for this reason are more of a practical than an academic nature. In spite of this it seemed worth while to analyse them to see what inferences, if any, might be drawn therefrom. For this purpose I have taken one thousand consecutive cases as being probably a number sufficiently large to enable one, at least upon some points, to form certain definite opinions. The period which embraces their reception is from April 1st, 1907, to the latter part of December, 1910. More than one thousand cases of attempted suicide were received during that time, but through my absence on leave on various occasions I did not personally examine all the admissions, and I have included in this paper only those whom I did.

The population furnishing the cases is a large one, consisting of the City and County of London, the counties of Middlesex and Surrey, and small adjacent areas of Hertford, Kent and Essex, mixed urban and rural. I have not separated the one from the other, and do not propose to contrast them in any way.

In all criminal work there is, and must be, a considerable difficulty in arriving at facts. The individual examined has so frequently a reason for evading the truth that the greatest caution has to be constantly exercised. By careful and repeated examinations of the same individual, and comparing the statements made at different times, I believe this error has been reduced to a negligible quantity. The results as to the mental state and motive are as a rule not merely personal. My late senior colleague, Dr. S. R. Dyer, Senior Medical



Officer of Brixton Prison, and before him Dr. James Scott, also examined the majority of the cases ; and the results of my own examination have generally been confirmed by one or other of them.

*Attempted Suicide as a Crime.*

In law attempted suicide is a misdemeanour, an indictable offence, triable at quarter sessions or assizes, and liable to a maximum sentence of two years' imprisonment with or without hard labour. It may be at once stated that in the district under consideration the large majority of cases are not sent for trial, but are dealt with and discharged by the magistrates. When tried before chairmen of quarter sessions, or judges at assizes, it is exceptional for them to be sent to prison.

It is sometimes said that attempted suicide should be removed entirely from the category of crime. This would not seem a popular view with those most concerned, *viz.*, the would-be suicide and his relations. Of all offences against the person it is the one most frequently self-confessed to the police, and there is no doubt that it is the one of all others of which the relatives most frequently themselves give information. Both the offender and his relations are often in such a position that the nearest assistance, and the readiest care and control, can be obtained by invoking the aid of the law ; for, as will be seen later, most of the cases which come before the courts are drawn from the least affluent classes. Having examined several hundreds of these cases, I have not the slightest doubt that to remove this offence from the list of misdemeanours would be frequently disastrous. Remanded to prison they have an opportunity afforded them of recovering themselves with the assistance of rest, good food, quiet, and medical attention in the prison hospital. The insane often for the first time come under medical observation, and can be treated as such, and at last be prevented from continuing as a danger to themselves or others. During the remand the court missionary, or some other philanthropic person, or charitable society or prison visitor, may find the accused employment and render material assistance to those in need. The moral cold douche which even a remand prison exercises upon many of these cases by itself frequently does much good. It is no uncommon thing for the medical

officers to suggest to the court a further remand with the knowledge and consent of the accused. Not a few are willing to avail themselves of this opportunity, and almost without exception when this course is adopted with a depressed but not certifiable patient, the improvement during the second remand is most marked. He knows he comes back to us from court of his own desire, as a sort of voluntary boarder, and will be discharged if fit at his next appearance at court. In fact, the prison hospital is the only institution in this country where care, control and treatment can be enforced at a period in the lives of these individuals when it is often absolutely necessary, for, as will be seen later, the majority of them cannot be sent to an asylum for the insane. That imprisonment, even if only on remand, acts beneficially, is to a certain extent shown by the fact that, apart from the alcoholic and malingering cases, few return similarly charged.

There is a weak spot in the legal procedure dealing with attempted suicide. When an accused is committed by the magistrates for trial at quarter sessions or assizes, the case is there first considered by the grand jury, before whom evidence as to the mental condition of the accused cannot be given. It may happen that without this knowledge the grand jury "ignore" the accusation laid before them. The prisoner is not then put upon his trial and must be released. I have known this to happen at least once in the case of an insane person charged with this offence.

There can be no doubt that a definite sentence of imprisonment is at times desirable. When put upon his trial the accused, although insane, may be fit to plead, and not infrequently pleads guilty, and refuses to accept the advice of the court to withdraw this and plead not guilty. Should this happen, evidence as to his state of mind can be heard, but his detention as a lunatic cannot be ordered by the court. A short sentence of imprisonment then becomes necessary, or sentence is postponed till the next sessions or assizes, as the case may be, the prisoner remaining in custody meanwhile that he may be certified insane in prison, and forthwith transferred to an asylum. Imprisonment seems desirable in men who repeatedly make attempts when under the influence of drink. Thus a cabinet-maker, æt. 41 at the time of his first attempt, when out of work and in drink attempted suicide, and since then in

less than two years has made other attempts when under the influence of alcohol, thrice with oxalic acid, once with red precipitate powder, and once by cutting his throat. He states he cannot withstand the craving for drink, and knows full well he is liable to suicidal impulses when he takes it. Again, a youth, æt. 19 at his first attempt, who "loves drink," in the space of two and a half years has on three occasions cut his throat, and twice attempted to strangle himself from this cause; on one of these occasions he had an attack of delirium tremens. The first three attempts resulted in his discharge by the magistrate; the fourth attempt, however, was punished with three months' imprisonment, his fifth attempt with six months'. It is now over a year since he has made any attempt on his life. Such cases seem more fit for an inebriate reformatory than a prison. There is, however, frequently an insufficient number of previous convictions for drunkenness which can be proved to permit of the adoption of this course. This being so, neither the Court nor the medical witness cares to accept the responsibility that the next attempt may not occur within a short time and be successful, and such cases are too unreliable for release conditional upon their not entering a public-house for a given period. Eventually imprisonment may become the only satisfactory way to deal with them.

A third class, for whom imprisonment ultimately may become necessary, is the "work-shy," who makes repeated slight attempts to obtain the shelter and comparative comfort of a remand prison. A man, æt. 23, has on four occasions taken spirits of salts, of doubtful strength and quality, to get locked up. He refuses to go into the workhouse, and after one attempt was taken care of by the Salvation Army. He, however, left there in a short time because "their singing gave him a headache." He is a malingerer, and the first time he came to this prison he pretended to be mute. He is unable to apply himself to any work for any length of time, and in this shows some evidence of mental weakness, and when privations press upon him he has made these slight attempts, knowing they would result in a remand, with warmth, food and shelter for the time, without working. He has been convicted on five occasions for other slight offences. His fourth attempt at suicide, now over two years ago, was treated with three months' imprisonment, and he has not made any further attempt unless in some other

locality. He is not certifiable as insane, but would be a suitable case for detention as a mental defective.

From time to time special cases occur which are considered by the courts to be best treated by imprisonment, *e. g.* an impulsive youth with criminal habits who attempts suicide may have his whole career altered by detention in a Borstal institution, emerging therefrom a stable, useful member of society.

How seldom imprisonment is inflicted is shown by the fact that in the year 1910, of 2,462 attempts at suicide known to the police in England and Wales in persons of both sexes, only 276 were committed for trial at quarter sessions or assizes—197 males and 79 females. Of these the grand jury returned "no true bill" in 7 (resulting in the discharge of the accused), 3 were found insane on arraignment, 2 guilty but insane, 17 were acquitted, leaving 247 convicted. Of these, 168 were discharged on recognizances, with or without probation order; 6 were otherwise disposed of, 2 were sent to an inebriate reformatory, and 2 to a Borstal institution. Thus of the 2,462 cases known to the police only 71 were sentenced to imprisonment, the majority of sentences being for three months and under(1).

#### *Yearly and Monthly Variations.*

From Table I it is seen that 2,701 men were received into Brixton prison charged with attempted suicide during the ten

TABLE I.—*Showing the Monthly Admissions to Brixton Prison of Attempted Suicides for Ten Years.*

Month.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	Total.
January .	21	18	14	19	18	20	20	19	12	19	180
February .	27	19	10	16	16	18	14	13	10	12	155
March .	20	24	21	17	18	25	21	21	11	15	193
April .	26	27	25	26	26	21	27	15	28	22	243
May .	27	24	31	29	32	26	23	23	16	19	250
June .	33	20	24	23	37	36	34	36	20	17	280
July .	37	39	31	20	32	33	29	23	29	20	293
August .	46	34	24	28	18	26	23	24	22	16	261
September.	19	30	17	26	27	20	26	15	19	17	216
October .	26	27	27	23	27	40	23	22	17	16	248
November.	16	25	16	20	15	18	21	11	11	20	173
December .	21	15	29	14	26	22	27	16	18	21	209
Total .	319	302	269	261	292	305	288	238	213	214	2701

years 1903 to 1912. It will be noticed in this table that after 1904 there was a diminution in the number of such cases received till 1907 and 1908, when there was a rise, the latter year being the higher, and since then there has been a gradual fall.

Somewhat similar in result is Table II(2), which shows the increase of suicides since 1857, both absolutely and in proportion to the population for England and Wales. Here, again, the year 1908 shows the maximum, to be followed by a slight fall in successive years.

TABLE II.—*Showing Annual Number of Suicides in England and Wales.*

Years.	Annual number of suicides.	Proportion per 100,000 population.	Years.	Annual number of suicides.	Proportion per 100,000 population.
1857-61	1309	6.65	1897-1901	2889	9.06
1862-6	1353	6.48	1902-6	3399	10.10
1867-71	1489	6.70	1907	3477	10.02
1872-6	1555	6.55	1908	3751	10.70
1877-81	1827	7.20	1909	3544	10.00
1882-6	2013	7.48	1910	3529	9.86
1887-91	2255	7.93	1911	3563	9.85
1892-6	2646	8.79			

Further, if a comparison is made with the number of attempts at suicide known to the police in England and Wales, and the proportion per 100,000 of the population as in Table III(3), a similar result is found, the year 1908 showing the highest number, followed by a fall which is up to the present maintained.

TABLE III.—*Showing Annual Number of Suicidal Attempts known to the Police.*

Years.	Annual number of attempts known to the police.	Proportion per 100,000 population.	Years.	Annual number of attempts known to the police.	Proportion per 100,000 population.
1865-70	704	3.21	1901-5	2304	6.92
1871-75	792	3.38	1906	2497	7.23
1876-80	923	3.71	1907	2514	7.20
1881-85	1009	4.13	1908	2625	7.43
1886-90	1123	4.26	1909	2356	6.59
1891-95	1506	5.35	1910	2462	6.88
1896-1900	1933	6.29	1911	2313	6.40

Again, in Table IV, which gives the number of cases of suicide in London in the years 1900-1911(4), the year 1908 shows the highest figure, since when there has been a fall.

TABLE IV.—*Showing Annual Number of London Suicides.*

Year.	Suicides.	Year.	Suicides.
1900	451	1906	537
1901	502	1907	509
1902	535	<b>1908</b>	<b>574</b>
1903	568	1909	458
1904	517	1910	508
1905	513	1911	465

From a consideration, therefore, of the number of cases of attempted suicide received into this prison, the annual number of suicides, the number of attempts at suicide known to the police, and the number of London suicides, it is clear that the year 1908 is responsible, for some reason or other, for an unusually high rate in each case; and that suicides and attempted suicides were both similarly influenced.

When the reason for this is sought for it appears to be due in some measure, as might be anticipated, to unemployment. Now, it is admittedly difficult accurately to estimate the amount of unemployment in any given period. Probably the best index is that afforded by the amount of unemployment recorded amongst members of trades unions. In the "returns relating to about 850,000 members of trade unions the mean of the percentages of members returned as unemployed at the end of each month of 1912 was 3·2, compared with 3·0 in 1911, 4·7 in 1910, and 7·7 in 1909. It must be noted, however, that the figure for 1912 is inflated by the high percentage recorded in March (11·3), when many industries were more or less affected by the coal dispute. The fluctuations in the percentages of unemployed in the period 1903-1912 are as follows": 1903, 4·7; 1904, 6·0; 1905, 5·0; 1906, 3·6; 1907, 3·7; 1908, 7·8; 1909, 7·7; 1910, 4·7; 1911, 3·0; 1912, 3·2 (5).

From this it is seen that in 1908 and 1909, as far as trades unions figures can show, there was the highest amount of unemployment for the decade.

Moreover, in 1908 "there was marked depression of trade and an unusual amount of unemployment. Among other statistical indications of hard times there was a diminution in the Imperial revenue, for the first time in five years; the total amount of imports and exports and of clearances at the Bankers' Clearing House both fell off, after increasing annually for seven and eight years respectively, and bankruptcies and other failures were more numerous than in either of the two preceding years . . . the number of persons charged with begging and sleeping out rose from 34,187 to 39,994, the highest figures recorded for fifty years"(6).

It will be noticed from the above that the year 1909 also showed a high percentage of unemployment according to the trades unions returns. This is not reflected to any extent in the annual number of cases received into Brixton, Table I; nor in the number of suicides in England and Wales, Table II; nor in the attempts at suicide known to the police throughout the country, Table III; nor in the London suicides, Table IV. Consequently, an exact parallel between unemployment (as represented by the trades unions), and suicide and attempted suicide cannot be demonstrated. But there would appear to be at least some grounds from the above for considering a relation to exist between them. Perhaps more cannot be expected, as I shall show later that, at any rate for suicidal attempts, unemployment is only one cause, although a substantial one, for the act. And further, it seems not unlikely that in any period of trade depression and consequent unemployment, the unfit, or the least fit, will be most markedly affected and tend to become eliminated at the commencement; and the greatest number of cases of suicide and attempted suicide will occur in the earlier stages of such a period.

I have no data to enable me to compare more closely attempts at suicide and unemployment. I know of no figures which give the monthly number of unemployed in the area from which my cases are drawn. But if the amount of unemployment as shown monthly by the trades unions returns, Table V(5), is compared with the number of cases of attempted suicide received into Brixton prison, Table I, no monthly correspondence will be found. It could hardly be expected, since Table V applies to the country generally, whereas Table I does not; but general agreement is shown that where

unemployment is high, as in 1908 and 1909, the number of cases received of attempted suicides also is high.

TABLE V.—*Showing Monthly Unemployment in Trade Unions.*

	Percentage unemployed at end of each month in—				
	1908.	1909.	1910.	1911.	1912.
January . . .	5·8	8·7	6·8	3·9	2·7
February . . .	6·0	8·4	5·7	3·3	2·8
March . . . .	6·4	8·2	5·2	3·0	11·3
April . . . .	7·1	8·2	4·4	2·8	3·6
May . . . . .	7·4	7·9	4·2	2·5	2·7
June . . . . .	7·9	7·9	3·7	3·0	2·5
July . . . . .	7·9	7·9	3·8	2·9	2·6
August . . . .	8·5	7·7	4·0	3·3	2·2
September . .	9·3	7·4	4·3	2·9	2·1
October . . . .	9·5	7·1	4·4	2·8	2·0
November . . .	8·7	6·5	4·6	2·6	1·8
December . . .	9·1	6·6	5·0	3·1	2·3
Mean . . . .	7·8	7·7	4·7	3·0	3·2

The marked diminution in Table I in the number of cases received charged with attempted suicide in the years 1910–1912 is probably due to some extent to the less amount of drunkenness met with. It has been noticed by the Medical Officers of Brixton prison, where many thousands of remand prisoners are received annually, that the number of men who show evidence of excessive drinking on reception is much less than formerly. The truth of this opinion is substantiated by the following Table VI (2), which shows the number of persons proceeded against for drunkenness in England and Wales from 1903–11 to be decreasing on the whole, although there was a slight rise in 1911 over the two preceding years. It will be shown later that drunkenness is an important factor in the causation of attempted suicide.

The last column in Table I shows clearly that attempts at suicide, as is generally recognised, are commoner in the warmer months. Graphically the curve for the ten years is shown in the accompanying figure. From the minimum in February there is a gradual rise to July, followed by a sudden drop in August and September, which is followed by a rise in



TABLE VI.—*Showing Annual Number of Persons proceeded against for Drunkenness in England and Wales 1903-1911.*

	1903.	1904	1905.	1906	1907.	1908.	1909.	1910.	1911.
Persons proceeded against for—									
Drunkenness . . . . .			67,557	69,080	72,358	70,279	60,289	56,023	55,570
Drunkenness with aggravations . . . . .	230,180	227,403	151,719	142,413	137,666	131,802	122,127	119,426	130,612
			219,276	211,493	210,024	202,081	182,416	175,449	186,182

October with another fall in November, and a slight rise in December and a commencing fall in January. The sudden drop in August and September is probably due to the migration of a large number of unskilled labourers into the country during those months, fruit- and hop-picking, etc., the rise in October signalling their return to the metropolis. The rise in December is attributable to the extra amount of alcohol taken during the holiday season at Christmas, for I find that, analysing the causes of attempted suicide in my cases for three complete years 1908-10, the percentage of cases in which alcohol appeared to be an important factor in the various months is :

January . . . . .	21·05 per cent.	July . . . . .	29·23 per cent.
February . . . . .	40·90 "	August . . . . .	32·50 "
March . . . . .	36·48 "	September . . . . .	29·50 "
April . . . . .	27·41 "	October . . . . .	27·38 "
May . . . . .	27·7 "	November . . . . .	34·69 "
June . . . . .	34·31 "	December . . . . .	44·82 "

Not only is the number of cases of attempted suicide, but also the number of actual suicides, of sexual crime, and of lunatics admitted into asylums increased during the warmer months (7) (8). Recent figures for actual suicide in London are (9) :

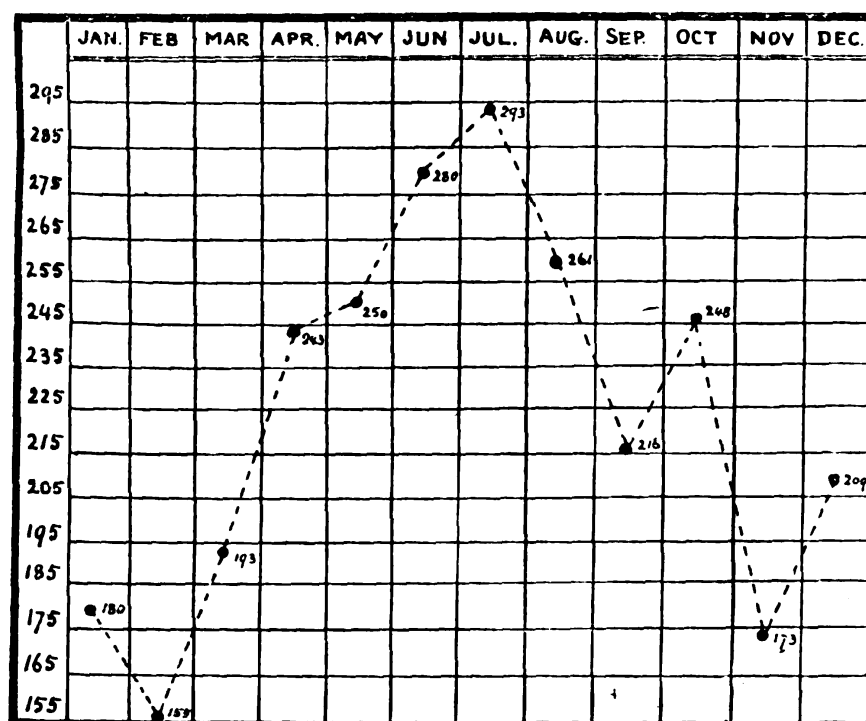
Quarter ended April 1st . . . . .	(13 weeks)	. . . . .	105 suicides
" " July 1st . . . . .	"	. . . . .	122 "
" " September 30th . . . . .	"	. . . . .	148 "
" " December 31st . . . . .	"	. . . . .	90 "

And in France for actual suicide (10) :

In January–March occur 24 *per cent.* of the suicides  
 „ April–June „ 29 „ „ „  
 „ July–September „ 27 „ „ „  
 „ October–December „ 20 „ „ „

The reason for this is exceedingly difficult to explain for attempted suicide. It is not due to alcohol, for the percentage

*Showing the Monthly Number of Attempted Suicides received into Brixton Prison for Ten Years (1903–1912).*



of alcoholic attempts is not greater in the warmer months, as is seen above. It is not due to unemployment being greater in the warmer months, for again taking the three complete years 1908–10, I find amongst my cases the monthly percentage attempting suicide for this reason to be as follows :

January .	29.82 <i>per cent.</i>	July .	26.15 <i>per cent.</i>
February .	38.63 „	August .	17.5 „
March .	31.08 „	September .	31.14 „
April .	24.19 „	October .	26.19 „
May .	22.2 „	November .	26.53 „
June .	20.58 „	December .	25.86 „

The two commonest causes of suicidal attempts—alcohol and unemployment—therefore, cannot be said to act more frequently in the warmer months, and some other factor or factors must determine the larger number of cases during that period. Possibly there is during the warmer weather less congregating together in infirmaries, casual wards, and, perhaps, prisons, of those individuals who, from their disabilities, are likely to make attempts. There is, in fact, amongst them during the warmer weather more isolation, favouring introspection and depression. Probably the atmospheric conditions, at least hygrometric and thermometric, are important factors producing physical fatigue with consequent irritability, impulsiveness and depression, sufficient with the common causes continually operating to determine the act being performed. I am convinced from the study of several cases that physical fatigue is not uncommonly the last straw which precipitates a suicidal attempt. Unfortunately, as our cases are not received till some hours, and at times days, after the attempt has been committed, no accurate estimate of the amount of fatigue present at the time of the act can be made, nor the number of cases in which this is a factor be accurately gauged.

*The Hour of Attempted Suicide.*

The hours of the day at which attempts at suicide were made in 1,000 consecutive cases appear in Table VII:

TABLE VII.—*Showing Hour of Attempt of the Brixton Cases*  
(1000).

Midnight to 1 a.m.	61	12 noon to 1 p.m.	50
1 a.m. to 2 a.m.	36	1 p.m. to 2 p.m.	24
2 a.m. to 3 a.m.	17	2 p.m. to 3 p.m.	44
3 a.m. to 4 a.m.	15	3 p.m. to 4 p.m.	46
4 a.m. to 5 a.m.	14	4 p.m. to 5 p.m.	66
5 a.m. to 6 a.m.	10	5 p.m. to 6 p.m.	47
6 a.m. to 7 a.m.	14	6 p.m. to 7 p.m.	63
7 a.m. to 8 a.m.	18	7 p.m. to 8 p.m.	52
8 a.m. to 9 a.m.	30	8 p.m. to 9 p.m.	61
9 a.m. to 10 a.m.	42	9 p.m. to 10 p.m.	54
10 a.m. to 11 a.m.	41	10 p.m. to 11 p.m.	65
11 a.m. to 12 noon	31	11 p.m. to 12 p.m.	65

Not known in 35 cases.  
One case attempted suicide at midnight and 10 a.m.;  
another at 4 p.m. and 7 p.m.

It will be seen from this that from 2 a.m. to 8 a.m., indicating perhaps to some extent hours of rest, suicidal attempts are infrequent. The figures differ somewhat from Brierre de Boismont's table for actual suicide, as shown in Table VIII, which refers to 1,993 suicides in Paris from 1834-1843 (8).

TABLE VIII.—*Showing Hour of Actual Suicides (1,993) in Paris.*

1 a.m.	51	1 p.m.	79
2 a.m.	49	2 p.m.	117
3 a.m.	45	3 p.m.	144
4 a.m.	50	4 p.m.	89
5 a.m.	70	5 p.m.	86
6 a.m.	102	6 p.m.	67
7 a.m.	102	7 p.m.	89
8 a.m.	126	8 p.m.	69
9 a.m.	104	9 p.m.	69
10 a.m.	110	10 p.m.	62
11 a.m.	81	11 p.m.	44
12 a.m.	123	12 p.m.	65

Of 1,000 attempts, the higher proportion occurring in the evening is in marked contrast to the proportion obtained in 1,993 cases of actual suicide. This seems to be due to the fact that to the unemployed and destitute the evening hours are particularly depressing—no money being available for a night's lodging, and no chance likely to offer itself for obtaining the same. To such the evening often is a time of physical weariness, hunger, despair, and bodily and mental fatigue. Further, during these hours alcoholic impulsive attempts from quarrels are likely to occur. The actual suicides are high during the morning hours, 5 a.m. to noon, the attempts are low till after 9 a.m. Whatever be the reason for this, it seems clear that the factors which determine suicide and suicidal attempts differ to some extent, although too much stress must not be laid on this, since both tables refer to very different periods and cities. The recognised fact that mental pain is most severe in the early hours of the day does not find expression in either table.

#### *Influence of Age on Suicidal Attempts.*

The ages at which suicidal attempts were made in the 1,000 cases appear in Table IX.

TABLE IX.—*Showing Ages of the Brixton Cases.*

Years.	Number of cases.	Years.	Number of cases.
10-15	—	45-50	85 } 154
15-20	56 } 203	50-55	69 }
20-25	147 }	55-60	38 } 81
25-30	172 }	60-65	43 }
30-35	134 } 306	65-70	13 } 16
35-40	135 }	70-75	3 }
40-45	102 } 237	75-80	1 }
		80-85	2 } 3

In suicidal attempts the numbers increase up to 30 years of age when there is a fall, the years 30-40 remaining stationary, after which there is a slightly irregular fall. The decade 25-35 shows the most numerous attempts, but the numbers remain high till 45 years is reached. From 20-45 the numbers are high, and these years probably represent in the working classes the period of greatest strain, of maintenance of a family, of active work, and at times of hard drinking, since money is earned and can be spent in that manner. After 45 years of age the family man amongst the working classes usually has grown-up children earning money and capable of supporting the home temporarily should he fall out of work. A further factor in the diminished numbers of this period is probably the lessened amount of excessive drinking after middle age is reached. This is well shown in Table X, which, however, refers to both sexes (11). After 50 the number of apprehensions for drunkenness falls very considerably, more so than would be explained by the increased death-rate of that decade.

TABLE X.—*Showing Ages of Cases apprehended in Liverpool for Drunkenness.*

Age.	1905.	1904.
Under 16	—	1
16-21	390	379
21-30	2211	2252
30-40	2263	2304
40-50	1556	1639
50-60	666	639
Above 60	424	394

In Table XI are shown the ages for actual male suicides in England and Wales in the year 1910 (12). From this it is seen that there is a progressive rise to the decade 45-55, the figure remaining high to 65, after which there is a rapid fall.

TABLE XI.—*Showing Ages of Male Suicides in England and Wales in the Year 1910.*

Age.	Number of cases.	Age.	Number of cases.
10-15	9	45-55	618
15-20	77	55-65	561
20-25	135	65-75	265
25-35	400	75-85	61
35-45	543	85 and upwards	11

From a comparison of Tables X and XI it is seen that the factors which produce suicidal attempts act at an earlier age than those which produce actual suicide. Dr. W. C. Sullivan, from a consideration of returns of the Registrar-General which dealt with actual suicide, and the criminal statistics which deal with suicidal attempts, says: "In the mortality returns of adult males it is found that the proportion of suicides by persons aged over 45 years is 55·6 *per cent.*, the period of maximum incidence being the decade 45-55. On the other hand, amongst adult males tried at assizes and quarter sessions during the last five years for attempting to commit suicide, the proportion aged over 40 years was only 46·7 *per cent.*, and the period of maximum incidence was the decade 30-40. . . . Hence it appears that abortive suicidal attempts differ widely from actual suicides in that their predominant cause tends to operate at a relatively early age" (13).

From this it will be seen that Dr. Sullivan, comparing the Registrar-General's returns with the criminal statistics, arrives at a conclusion similar to that which is reached by comparing the Registrar-General's return with the Brixton figures, differing only in the one point that, whereas Dr. Sullivan quotes the decade 30-40 as the maximum incidence for suicidal attempts the Brixton figures show the decade 25-35.

In Table XII are seen the ages for actual male suicides in France for the year 1910 (10).

TABLE XII.—*Showing Ages of Male Suicides in France during 1910.*

Age.*	Number of cases.
Under 16	56
16-20	209
21-29	922
30-39	1051
40-49	1319
50-59	1424
60 and over	2257

\* In 238 men the age was unknown.

This differs from the English figures in Table XI, which applies to the same year in that the numbers still progress after 55 years of age, but it shows that the commonest suicide age in France is higher than that for attempted suicide in England, in this respect confirming Table XI.

#### *Religion and Attempted Suicide.*

The influence of the different religions on suicidal attempts is exceedingly difficult to estimate. I know of no reliable figures which give the numerical relations of the various religions in the area under consideration. Dr. Sullivan, in the paper quoted above, states that—"In Ireland, as in most predominantly Catholic countries, the rate of actual suicide is very low, that of suicidal attempts is relatively high." In the 1,000 cases of attempted suicide particularly considered in this paper I found :

Church of England	.	.	.	888
Roman Catholic	.	.	.	74
Jewish	.	.	.	22
Mahomedan	.	.	.	1
Russian Church	.	.	.	1
Lutheran	.	.	.	4
None	.	.	.	10

Whatever bearing the different religions, separately considered, may have on attempted suicide, there can be no doubt that

strong religious views amongst Western nations frequently act as a check on suicide and suicidal attempts, and are amongst the most forceful of preventives in sound minds. In the insane, on the other hand, as is commonly recognised, perverted religious ideas not infrequently cause one or other disaster.

*Relation of Married State to Attempted Suicide.*

I found—see Table XIII—that of the 1,000 cases 447 were single, 419 married, 69 widowed, 57 married but separated from their wives, 7 unmarried but cohabiting with a woman, and in one no information could be obtained. Of the married, 362 had children, 57 none; and of the widowers, 54 had children, and 15 were childless. The effect of children is variable.

TABLE XIII.—*Showing Civil Status of 1,000 Brixton Cases of Attempted Suicide.*

Single.	Married.		Widowers.		Married, but separated.	Unmarried, but cohabiting with a woman.	Not known.
	With children.	No children.	With children.	No children.			
447	362	57	54	15	57	7	1
	419		69				

The young married man with a family has more lives to maintain and is subject to greater stress. With a limited income or small wage the advent of a family means, or should mean, fewer luxuries for himself, fewer comforts, and, alas! at times fewer of the necessities of life. As age advances, however, he is subject to less stress, the children reaching an age at which they can contribute to the upkeep of the home. Again, the thought of protecting and maintaining his offspring, whilst in many a strong preventive against attempts at suicide, becomes in certain circumstances, in some cases, a determining factor in the attempt. The sight of his children, cold and hungry, often produces so much distress and depression that a suicidal attempt results.



For actual suicides it has been found that the married are the least likely to commit suicide, then the single, and that the widowers are most likely to do so, and further that the married or widowed man is more likely to commit suicide when childless (8).

A similar result is shown by the French figures for 1910: 163 widowers or divorced males per 100,000 marriageable inhabitants commit suicide, as compared with 58 single and 38 married men. But if the percentage for the number of suicides is considered, the single men, numbering 2,292 or 33 *per cent.*, come between the married, 3,121 or 44 *per cent.*, and the widowers or divorced with 1,637 or 23 *per cent.* (10).

Whilst, therefore, attempted suicide is apparently not much affected by the civil status, actual suicide is markedly affected — another difference between successful and abortive suicide.

#### *Family and Personal History.*

The study of the family history of the 1,000 cases was as disappointing as was anticipated. It is well nigh impossible in most cases to get any accurate family history; very often the personal history is far from accurate. As far as could be learnt, 2·9 *per cent.* of the cases had been previously in an asylum; 10·2 *per cent.* had relatives who, they knew, had been certified insane; 0·6 *per cent.* had epileptic relations. Of the 166 cases regarding which the question was particularly gone into, 27·10 *per cent.* gave a history of parental intemperance. There is little doubt that all these figures are considerably less than they should be. The family histories of many were unknown, in others there would be a tendency to withhold any facts which the accused might consider would weigh against him when presented to the court.

#### *Physical Condition on Reception.*

The health of the 1,000 cases on reception may be stated as follows:

Good or fair. No symptoms of disease apart from the  
result of the suicidal attempt. . . . 709

Bad or indifferent.

I. Disease of lungs:

Phthisis . . . . .	12
Bronchitis . . . . .	9
Fibroid lung . . . . .	1
Pneumonia . . . . .	1
—	23
II. Morbus cordis, not including various cases of arterio-sclerosis . . . . .	24
III. Nervous system :	
Various . . . . .	12
Alcoholic neuritis . . . . .	1
Ataxic paraplegia . . . . .	1
Disseminated sclerosis . . . . .	1
Idiopathic muscular paralysis (Erb's) . . . . .	1
Locomotor ataxy . . . . .	2
Paralysis agitans (severe) . . . . .	2
—	20
IV. Anæmia . . . . .	28
V. Chronic nephritis . . . . .	1
VI. Abdominal cancer . . . . .	1
VII. Influenza . . . . .	1
VIII. Old injury to cervical spine (? caries) . . . . .	1
IX. Chronic headache after trephining . . . . .	1
X. Venereal . . . . .	9
XI. Severe osteo-arthritis . . . . .	7
XII. Jaundice (?) cirrhosis . . . . .	1
XIII. Caries of femur . . . . .	1
XIV. Alcoholism—acute or subacute . . . . .	61
XV. General debility . . . . .	112
—	1000

Attempts at suicide due to physical disease are not very common. Influenza, phthisis, pneumonia, cancer, syphilis, pain, locomotor ataxy and ataxic paraplegia were found to be the chief conditions which were wholly or partially responsible as will be seen later. Heart disease acts as a direct cause of attempts apparently very seldom, arterio-sclerosis as a contributory cause not infrequently. Sir George H. Savage states, however, "With heart disease there is a tendency to feeling of dread and fear of

impending trouble, which may readily, especially if associated with sleeplessness, lead to suicide" (14).

*Occupation.*

TABLE XIV.—*Showing Occupations of the 1,000 Brixton Cases.*

Labourers . . . . .	188	Commercial travellers	15	Packers . . . . .	9
Barmen and potmen	41	Tailors . . . . .	15	Roundsmen . . . . .	9
Carmen . . . . .	41	Horsekeepers and		Canvassers . . . . .	8
Doubtful—loafers,		stablemen	14	Pensioners . . . . .	8
etc. . . . .	41	Waiters . . . . .	14	Private means . . . . .	8
Porters . . . . .	38	Printers . . . . .	13	Cabinet makers . . . . .	8
Shop assistants . . . . .	37	Coachmen and		Gardeners . . . . .	7
Painters and deco-		grooms	13	Stokers . . . . .	7
rators . . . . .	35	Soldiers . . . . .	11	Messengers . . . . .	7
Clerks . . . . .	33	Fitters . . . . .	11	Engineers . . . . .	7
Hawkers . . . . .	30	Bootmakers . . . . .	11	Dealers . . . . .	6
Small tradesmen . . . . .	30	Bricklayers . . . . .	10	Blacksmiths . . . . .	6
Seamen . . . . .	26	Warehousemen . . . . .	10		
Carpenters . . . . .	17	Plumbers . . . . .	10		

*Less than six, in some cases only one.*

Miller's labourer.	Shunter.	Surgeon.
Galvanizer.	Baker.	Furnace builder.
Saddler.	Asylum attendant.	Bottle corker.
Ship steward.	Male nurse.	Brass finisher.
Leather finisher.	Picture-frame maker.	Engine driver.
Hammerman.	'Bus driver.	Leather bag maker.
Theatre fireman.	" conductor.	Lavatory attendant.
" light attendant.	Grainer.	Box maker.
" orchestra	Gilder.	Clay-pipe maker.
musician.	Chair maker.	Door-keeper.
Scene shifter.	Packing case maker.	Boiler maker.
Furniture fitter.	Tinsmith.	" cleaner.
Cabman.	Metal worker.	Electric wireman.
Shop manager.	Iron worker.	" engineer.
Caretaker.	Moulder.	Civil engineer.
Night watchman.	Window cleaner.	Teacher.
Grave digger.	Kitchen porter.	Basket maker.
Watchman.	Cook.	Armourer.
Butler.	Hotel plateman.	Walking stick bender.
Footman.	Book keeper.	Brakesman.
House boy.	Wood turner.	Photographer.
Indoor servant.	Fish frier.	Model maker.
Silversmith.	" curer.	Sawyer.
Silver polisher.	" cleaner.	Gold blocker.
Paper hanger.	Cycle maker.	Coach builder.
Street musician.	Dustman.	Sign writer.
Agent.	Toymaker.	Etc., etc.
Brass polisher.	Student.	
Journalist.	Chemist's assistant.	

The various occupations which the 1,000 cases pursued are given in Table XIV. The unskilled workman heads the list, as would be expected. The position of barmen and potmen, with the ready access to alcohol their work affords, might be

anticipated. The evolution of the means of locomotion is seen in those coachmen, grooms, stablemen, harness-makers, etc., whom motor traffic has ousted from their employment. Painters and decorators, with the great fluctuations in employment which are experienced in this trade, afford a large number of cases. The majority were not of superior education, probably because the better a man's education the less difficulty has he in finding employment, and the less likely is the attempt of such a person to become known to the police, as his surroundings are then usually of a kind that he can receive skilled attention at home.

With regard to occupation in relation to actual suicide, I have no recent English figures bearing on this point. The French Criminal Statistics for 1910 give the following for males (10) :

		Per 100,000 members of corresponding population.
Fishing, agricultural and forestry . . . . .	3076	or 55
Trade and commerce . . . . .	2391	„ 40
Liberal professions . . . . .	195	„ 67
Domestic servants (valets, etc.) . . . . .	237	„ 136
Public services . . . . .	403	„ 36
Persons living on their incomes . . . . .	459	„ 41
Children under age without profession . . . . .	51	„ 1

The class of domestic servants of both sexes furnishes the largest proportional number of suicides ; after these, among men, members of the liberal professions come next.

It is much to be regretted that a closer comparison between occupation groups in attempted suicide and suicide cannot be obtained ; it would appear probable that a marked difference would be found were it available.

#### *Method of Attempt.*

In Table XV is seen the method adopted to terminate life in the one thousand cases considered ; at times more than one method is simultaneously or consecutively carried out. All the attempts were not of equal severity, but it must not be thought that because the suicide was abortive that the attempt was not serious ; in many cases it was very serious, and the patient's life had been in great jeopardy. Of course some cases were trivial, others not genuine.

TABLE XV.—Showing Method of Attempt in the Brixton Cases.

Poison.	Wounding with a sharp instrument.	Drowning.	Hanging.	Strangulation.	Fire-arms.	On the railway.	Under a vehicle in motion.	Jumping from a height.	Anno- malous.	Threa- tenced, not carried out.	Not known.
340	<i>Cut throat</i> . . . 251 <i>and arm</i> . . . 8 <i>and drowning</i> . . . 2 <i>stabbing and</i> <i>and under a van</i> . . . 1 <i>poison</i> . . . 1 <i>and chest</i> . . . 1 <i>and hanging</i> . . . 1 <i>and back of neck</i> . . . 1 <i>and poison</i> . . . 2 <i>and strangulation</i> . . . 1 <i>Cut wrist</i> . . . 13 <i>and right brachial</i> <i>artery</i> . . . 1 <i>hand and face</i> . . . 1 <i>and leg</i> . . . 1 <i>and fingers</i> . . . 1 <i>Stabbing</i> . . . 8 <i>and poison</i> . . . 1	<i>Drowning</i> 190 <i>and</i> <i>poison</i> . 1 <i>and cut</i> <i>wrist</i> . 1 <i>and</i> <i>strangu-</i> <i>lation</i> . 1	53	31	<i>Fire-</i> <i>arms</i> 25 <i>and</i> <i>poison</i> 1	Front of a train 21 Front of a train and then a motor 'bus . 1 Out of a train in motion . 1	Motor 'bus . 4 Motor van . 1 Motor . 1 Tram . 1 Traction engine 1 Horse 'bus . 1	Out of a win- dow 6	Striking on head with a heavy ham- mer 1	20	3
See separate Table XVI.											
340	295	193	53	31	26	23	9	6	1	20	3

The methods adopted in 2,680 cases of male suicides in England and Wales in 1910 (12) are as follows :

Hanging . . . . .	740
Drowning . . . . .	525
By knife . . . . .	474
Poison . . . . .	429
Firearms . . . . .	210
On the railway . . . . .	158
Jumping from a height . . . . .	48
In front of vehicles (steam lorry, traction-engine and van) . . . . .	3
Pillow-case in mouth . . . . .	1
Placing head in fire . . . . .	1
Otherwise or not stated . . . . .	91

If the commonest methods adopted in suicide and attempted suicide are compared as below, one finds :

<i>In Suicide.</i>		<i>In Attempted Suicide.</i>	
	Per cent.		Per cent.
1. Hanging . . . . .	27·61	1. Poison . . . . .	34·0
2. Drowning . . . . .	19·58	2. Wounding . . . . .	29·5
3. Wounding . . . . .	17·68	3. Drowning . . . . .	19·3
4. Poison . . . . .	16·00	4. Hanging and strangulation . . . . .	8·4
5. Fire-arms . . . . .	7·83	5. Fire-arms . . . . .	2·6
6. On the railway . . . . .	5·89	6. On the railway . . . . .	2·3
7. Jumping from a height . . . . .	1·79	7. In front of a vehicle . . . . .	0·9
8. In front of a vehicle . . . . .	0·11	8. Jumping from a height . . . . .	0·6

And here again a material difference is found between suicide and suicidal attempts. This difference is also marked in the list of poisons, which have been separately dissected and shown in Tables XVI and XVII.

In attempted suicide the favourite poisons are oxalic acid, laudanum, spirits of salt, carbolic acid, coal-gas, salts of lemon and various liniments, in the order in which they are taken. In suicide, coal-gas, hydrochloric acid, oxalic acid, potassium cyanide, prussic acid, laudanum, carbolic acid (12).

I have analysed the method of the attempted suicide in those cases who were insane, and whose attempt at suicide was caused by insanity—123 cases out of 1,000. The result is given in Table XVIII. The methods in actual and attempted suicide differ so much that it was thought some information might be obtained possibly as to the amount of insanity in actual suicide by such a comparison. No such relation is

TABLE XVI.—*Showing Poison taken in 340 Attempted Suicides (Brixton Cases).*

Poison.	Cases.	Poison.	Cases.
Oxalic acid . . . . .	93	Battle's vermin killer . . . . .	2
Laudanum . . . . .	49	Strychnine . . . . .	1
Spirits of salt . . . . .	30	Morphia pills . . . . .	2
" " and vermin killer } . . . . .	26	Glycer. bellad. . . . .	1
Carbolic acid . . . . .	26	Lead lotion . . . . .	1
" disinfectant . . . . .	20	Chloral . . . . .	1
Coal-gas . . . . .	19	Creosote . . . . .	1
Salts of lemon . . . . .	16	Quicksilver . . . . .	1
Liniment . . . . .	7	Boric lotion . . . . .	1
Zinc sulphate . . . . .	7	White lead . . . . .	1
White precipitate . . . . .	5	Chloroform . . . . .	1
Chlorodyne . . . . .	1	Atropine drops . . . . .	1
" and laudanum . . . . .	1	Hydrochloric acid . . . . .	1
" and wht. ppt. . . . .	6	Cocaine . . . . .	1
Phosphorus paste . . . . .	3	Copper sulphate . . . . .	1
Rat poison . . . . .	4	Tinct. iodi . . . . .	1
Eye lotion . . . . .	3	Sugar of soap . . . . .	1
Ammonia solution . . . . .	1	Turpentine . . . . .	1
" solid . . . . .	3	Veterinary lotion . . . . .	1
Veronal . . . . .	3	Globe polish . . . . .	1
Potass. cyanide . . . . .	2	Soldering fluid . . . . .	1
Toothache tincture . . . . .	2	Sugar of lead . . . . .	1
Red precipitate . . . . .	2	" " and zinc sulphate . . . . .	1
Sulphuric acid . . . . .	2	Paraffin . . . . .	1
Acetic acid . . . . .	2	Unknown . . . . .	9

TABLE XVII.—*Showing Poison taken in 429 Suicides.*

Poison.	Cases.	Poison.	Cases.
Coal-gas . . . . .	94	Weed killer . . . . .	2
Hydrochloric acid . . . . .	57	Vermin killer . . . . .	2
Oxalic acid . . . . .	53	Chromic acid . . . . .	1
Potassium cyanide . . . . .	36	Picric acid . . . . .	1
Prussic acid . . . . .	32	Mercury chloride . . . . .	1
Opium, laudanum, morphia . . . . .	28	Mercury iodide . . . . .	1
Carbolic acid . . . . .	25	Silver nitrate . . . . .	1
Strychnia . . . . .	7	Zinc chloride . . . . .	1
Ammonia . . . . .	7	" sulphate . . . . .	1
Nitric acid . . . . .	6	Chlorodyne . . . . .	1
Arsenic . . . . .	4	Chloroform . . . . .	1
Sulphuric acid . . . . .	3	Sulphonol . . . . .	1
Pot. bichromate . . . . .	3	Narcotic (not stated) . . . . .	1
Nicotine . . . . .	3	Lysol . . . . .	1
Carbon monoxide . . . . .	3	Disinfectant . . . . .	1
Phosphorus . . . . .	2	Charcoal fumes . . . . .	1
Mercury . . . . .	2	Not stated . . . . .	44
Veronal . . . . .	2		

traceable, however, but it must be remembered that the numbers in Table XVIII are small.

In Table XIX, the method of the suicidal attempt in 360 alcoholic cases from the 1,000 is shown. As in the insane cases, poison, wounding and drowning are the favourite

TABLE XVIII.—*Showing Method of Attempt in the Insane Cases.*

Wounding with a sharp instrument.	Drowning.	Poison.	On the railway.	In front of a moving vehicle.	Hanging.	Fire-arms.	Strangulation.	Jumping from a height.	Anomalous.	Threatened.	Unknown.
Cut throat, cut wrist, stabbing. 50 Ditto and poison. 3 Ditto and under a van. 1 Attempt to cut right brachial artery. 1	24	Various 14 Coal-gas 1	7	Motor bus. 1 Motor van. 1 Horse tram 1	5	5	4	2	Striking on head with a hammer 1	1	1
55	24	15	7	3	5	5	4	2	1	1	1

TABLE XIX.—*Showing Method of Attempt in the Alcoholic Cases.*

Poison.	Wounding with a sharp instrument.	Drowning.	Hanging.	Strangulation.	On the railway, or in front of a vehicle.	Fire-arms.	Jumping from a height.	Threatened.
Various 102 Coal-gas 8	Cut throat, cut wrist, stabbing, etc. 100 Ditto and poison. 1 Ditto and strangulation. 1	Drowning 79 Ditto and strangulation. 1	25	16	9	8	6	4
110	102	80	25	16	9	8	6	4



methods. There is, however, in the alcoholic a greater tendency to poisoning and a less tendency to wounding, whilst drowning remains much the same in the two classes. Here, again, only small numbers are dealt with, and it seems wise to attach little importance to the result.

*Causation of Attempted Suicide.*

It seems hardly necessary to state that because a person attempts or commits suicide the writer does not consequently believe him to be insane, judged by that act alone. Dr. Hack Tuke has said—"It cannot be admitted for a moment that the suicidal act taken alone is any sign of insanity" (15). Sir George H. Savage, in a lecture on mental disorders and suicide, delivered at the Medical Graduates' College and Polyclinic on May 9th, 1911, said: "I suppose it is well to say at starting that suicide alone is not evidence that a person was suffering from any recognised form of mental disorder" (16).

Dr. Wynn Westcott quotes Dr. Maudsley on this point thus: "Just as madness may exist, without any idea of suicide, so suicide may take place, the effect of a full and free determination, formed by a healthy mind, and executed with the coolness and complete system of precautions of the most perfect logic" (17). And yet it is sometimes heard in the courts from a medical witness, that because suicide has been committed or attempted the individual is consequently insane. In a serious criminal case, such as murder, where the homicide frequently attempts suicide, if there be no other defence save insanity, the accused's counsel will urge his client is insane; and often the only fact suggesting insanity which he can put before the jury is that his client attempted suicide. Not uncommonly a jury will attach great importance to this, forgetting that the more serious the crime committed the more reasonable does a consequent attempt at suicide become.

It is exceedingly difficult at times to draw the line between sanity and insanity in some cases of attempted suicide. "Morbid depression is depression without the justification of depressing circumstances" (Dr. Charles Mercier) (18). But one sees many cases where there is justification, and the question at issue is whether the depression is, or is not, somewhat excessive. In such cases, it is obvious, difficulty may be

experienced in deciding that the reaction is abnormal, and no general rule can be laid down to enable one to form an accurate opinion. Each case requires separate consideration, bearing in mind all the surrounding circumstances, and comparing them with past experience.

In examining into the motives for the suicidal attempt, the thought has frequently passed through one's mind, not that so many cases occur, but that more are not met with, considering the distressing accounts which are so often heard. Many, apart from alcoholism, are of an impulsive character, often depending upon an impulsive nature, which is, I believe, in turn very often the result of early environment. Cuffed and abused as a child on slight provocation, without lessons in discipline, without example of self-restraint, what wonder that an adult develops without sufficient inhibitory powers, and that impulsive acts of violence causing injury to self or others arise from trivialities!

In Table XX is shown the causes of attempted suicide in the 1,000 cases dissected, and it will be seen immediately that it is common for more than one cause to be acting at the same time. When this occurs the group into which the case has been placed is that which shows the main cause, ancillary causes being sub-grouped.

*Alcoholism.*—The alcoholic cases form the largest class, 393 in all, *viz.*, 33 cases of alcoholic insanity, 16 with weak-mindedness, 141 unconscious impulse, 171 impulsive with memory retained, 31 post-alcoholic depression, and 1 an alcoholic accident. This is probably an under-estimate, for certain of the weak-minded cases, apart from recent alcoholism, should possibly come under this classification in that the mental defect may result from chronic alcoholism or a previous attack of acute alcoholism. Even then the total number of cases due to alcohol is very much less than is sometimes found. Dr. W. C. Sullivan, from an examination of 110 cases, classifies them according to their alcoholic condition at the moment of attempt, thus :

		Males.	Females.
Sober . . . . .		16	7
Drunk { memory retained . . . . .		17	16
{ Amnesia . . . . .		21	33

That is, 79.1 *per cent.* of the attempts were made in a state of actual drunkenness (19). To some extent the marked difference

between his figures and those in Table XX is due to the fact that the former refer to Liverpool cases, where the industrial conditions differsomewhat from those in London, and the population from which the cases are drawn chiefly are of a different character.

The table well shows that the suicidal alcoholic impulse when acting alone is commonly amnesic (85 without and 35 with memory). But when the suicidal alcoholic impulse acts with some other cause the reverse holds good, it being then commoner for memory to be retained (56 cases without and 136 with memory). States of post-alcoholic depression which cause suicidal attempts are less likely to do so when acting alone than when acting with some other causes ; in this agreeing with the alcoholic impulse in which memory is retained.

As an example of a case of alcoholic impulse with amnesia the following, typical of others, may be given : A labourer, æt. 33, in work earning 27s. a week, married and living fairly happily with his wife and two children, æt. 7 months and 19 months respectively, hanged himself to the cistern pipe in the closet with his body-belt and a piece of cloth. He had never been in prison before nor fined. He had never been in an asylum, had no insane relatives, was not epileptic, and had never made an attempt on his life before. He had no quarrels and no debts worrying him, he owed a week's rent ; but this was not uncommon and not a matter to perturb him in any way. For the previous three days, *i.e.*, through the Whitsun holidays, he had been drinking heavily, going to bed drunk each night. He had no worries or anxieties and nothing, apart from drink, in any way predisposing to suicide. Coming home drunk about midnight he made the attempt and had no recollection whatever of doing so.

The occurrence of an amnesic alcoholic impulse acting with other causes is seen in the following case: A milkman attempted to jump over Blackfriars Bridge late one summer evening. He was 31 years of age, and had been out of regular work for four months. His personal and family history were free from insanity, epilepsy or crime. Ten days before the attempt his wife had died from puerperal fever, leaving him with six children, the eldest æt. 10. He was much upset at his wife's death, and it seemed probable that he had been drinking to excess since. A sister and mother-in-law had looked after the children since the





bereavement, but could afford to do so no longer. The bailiffs were in his home; he was at the end of his resources. He had been eating and sleeping well, but had met some friends, got drinking with them and left them intoxicated. He had no recollection whatever of getting on the bridge or making the attempt. He had never thought of suicide before. In this case alcohol, bereavement and privations acted together.

As an example of attempted suicide due solely to an alcoholic impulse with retained memory the following may be taken: Employed by a borough council, a man, æt. 39, earning on an average thirty shillings a week, married, with four children, and living happily with his wife, had nothing of note in his personal history. His maternal grandfather died in an asylum. He had no worries or anxieties, no debts or quarrels; but when in drink one Christmas day he tried to cut his throat, but was prevented. On the following New Year's day, after drinking beer and whiskey, and whilst under the influence of alcohol, he tried to strangle himself. He had been drinking heavily for some considerable time before the first attempt, for which he was not charged, but had been able to continue at his work. He remembered making both suicidal attempts, but had no idea why he had done this.

In the following case a quarrel and being out of employment were additional causes to the conscious alcoholic impulse, and probably the act would not have been performed had no drinking been indulged in: A labourer, æt. 38, married, with a crippled wife and no children, had once been fined for drunkenness and also once imprisoned for an assault (? due to drink). There was nothing further of importance in his personal history, except that not long before he had been suffering from a fistula, and been treated in a hospital. He said he was depressed on account of this illness. The family history was negative. He had been out of work for twelve days, and on the day of the attempt had been promised work, but on going to the place found everything closed and no work to be obtained. Disappointed, he spent a considerable portion of the day drinking, and when he got home his wife would not believe he had tried for the job, and they quarrelled. In a temper, and still under the influence of alcohol, he cut his throat.

Between the alcoholic cases with memory and those without are those in which only a faint recollection of the act remains in

varying degree, and, although for convenience the cases have been grouped as if there was a sharp dividing line between them, it will of course be understood that this is not actually so.

It is uncommon for the depression following excessive drinking to be the sole cause of attempted suicide (5 cases), but when depression from various causes exists already and is added to after drink depression, attempts at suicide become more frequent (26 cases). The following are examples of these two conditions :

A cabman, æt. 48, who did not earn much on account of competition from taxicabs, but whose wife earned money at midwifery, with two children alive, one 26, the other 21 years of age, and eight dead, tried to throw himself into the Regent's Canal. He had been fined thrice for drunkenness, and eighteen months previously had had delirium tremens and been detained in the mental ward of an infirmary, but never certified. No family history could be obtained. His physical condition was indifferent, and on reception he was evidently suffering from recent heavy drinking. He had no quarrels, no worries, lived happily with his wife, and only owed twelve shillings for two days' hire of a cab, which, however, did not cause him any anxiety, but he had a headache and felt ill and depressed after drinking heavily for some days. This depression sufficed to make him wish to end his life, and was the cause of the attempt.

A book-keeper, aged 49, single, and living in lodgings, became depressed after the death of his father and on his brother going abroad. His relations allowed him fifteen shillings a week, and he did a few odd jobs at times, but had no permanent employment. The only fact that could be ascertained of any importance in his history was that he had once been fined for drunkenness. He attempted suicide by jumping out of a window, and, falling twenty feet, received a fractured heel. The attempt was due in part to his already existing depression, and in part to depression after drink. He had been drinking heavily for a week, but for three days prior to the attempt only very little, and became more depressed after his carouse had ceased.

Alcohol may cause attempts at suicide on account of insanity, weak-mindedness, conscious or unconscious impulse, and post-alcoholic depression. In each of these the alcohol has usually

been indulged in to excess for some time. I saw one case last year, a youth who had attempted suicide during his first intoxication, and, although it is not one of the 1,000 cases under consideration, on account of its rarity it is, I think, worth recording :

A Polish Jew, æt. 18, who had been in England eighteen months, had been out of work for four weeks, but had at the time of the attempt on his life employment in prospect. He was a cap-maker, and could earn at this, he stated, twenty-five shillings a week. There was nothing of any importance in his family or personal history. Although he was out of work he had been lodged and provided with food by co-religionists. He had had no quarrels, no love troubles, and was free from anxieties. One evening he met some friends, and drank brandy with them till intoxicated, and when he got to his room took some camphor liniment, which was there in a bottle, with suicidal intent. He remembered taking it, but had never thought of suicide before ; neither had he ever drunk brandy or been intoxicated previously, although he had taken beer and wine in Paris in moderation before he came to England.

Dr. W. C. Sullivan records (19) the case of a girl, æt. 18, who attempted suicide by drowning, in her first intoxication by alcohol, and she stated that she had never previously taken any alcoholic liquor.

It is frequently stated by the alcoholic cases that they have never thought of suicide before their drunken attempt, and are astounded and often frightened on becoming sober at the jeopardy they have been in. The alcohol is, of course, taken by the worried and depressed for its temporarily exhilarating property ; nothing seems more likely to give rise to a suicidal impulse when this effect has passed off.

*Unemployment and destitution.*—A considerable number of cases of attempted suicide arose from being out of employment ; this was sufficient cause by itself in 77 cases ; acting with other causes, it occurred in 35 cases. Allied to these are those cases due to destitution acting alone, 30 cases ; or with other causes, 34 cases. I have distinguished between the two, unemployment and destitution, and the result is somewhat surprising ; for, of the two, destitution would appear to be more likely to cause a suicidal attempt. That it does not may be due either to the fact that, when this condition is reached, the workhouse is accepted as inevitable, or that human fortitude generally



breaks down before the more hopeless condition is reached. The depression these states cause may not give rise to a suicidal attempt unless and until the border-line between sanity and insanity is attained, or till actual insanity has developed.

In the analysis as shown in Table XX, physical exhaustion, in cases of attempted suicide from unemployment, was a contributory cause in 19 cases, and in 30 cases of destitution. This is an under-estimate; I have only noted it when marked. I believe it is frequently an ancillary cause even when present in slight degree. Sometimes when the weather has been very cold this fact has been mentioned by the patient as having increased the depression. In this connection it is worth noting that it is stated that, when exposure to cold has been of long duration, there is often a propensity towards suicide (20).

I find, in going through the notes of this type of case, the last pence have often been kept back with which to buy poison. Sometimes the unfortunate individual, finding himself becoming more and more depressed, asks to be prevented from killing himself. At times this is done to obtain charitable relief, but at others the appeal for protection is genuine. It is from the unemployed and destitute a feigned attempt is made "to advertise his case." Sometimes a two-fold idea is present in the man's mind—that if it result in death well and good; if in rescue and employment, also well and good. An attempt slight in degree may be made with the admitted intention of getting arrested, and so obtaining the temporary shelter of the remand prison.

Unemployment, when continued for any length of time, and when privations fall not only upon the man, but upon his wife and children, becomes intensely depressing; troubles which would be lightly thought of at other times assume gigantic proportions. And, as time passes and no work is obtained, there grows the fear in the man's mind that he is becoming unemployable, partly because he cannot replace his clothes, now become ragged, partly from weakness due to insufficient food. I have never traced any fear that the long-continued absence of employment and the constant worry may cause the individual to become unemployable on account of mental deterioration. Fortunately, that such may and does happen is not apparently realised by those who are most frequently in circumstances liable to induce this state.

Attempted suicide due to unemployment is seen in the following case: A barman, æt. 39, with an invalid wife and four young children, having been out of work for ten months and gradually selling up the home, left the seaside town in which he lived with seven pence in his pocket, and tramped to London. For six days he tried to get work and failed; he slept in the streets, and for food had three pennyworth of bread and cheese in eight days. Despairing of work and exhausted, he determined to give up the struggle, and bought three pennyworth of oxalic acid, which he took in water. He vomited this in a few minutes, did not lose consciousness, and in about half an hour the stomach was washed out in one of the hospitals. He had never been in an asylum, nor had any of his relatives; he was not intemperate, the attempt was not connected with alcohol. Before he was discharged from the court a permanent situation had been found for him.

In the following case the attempt was mainly due to destitution. A lad, æt. 23, who had worked in a fish shop, but who had been out of employment for a month, lived by pawning his clothes, and was in consequence very depressed. His sweetheart, a factory girl, lost her situation, and she and her mother were turned out of the one room they occupied; none of them had anywhere to go to then except the workhouse. The lad and girl went out early to try to find a room where they could all stay, and to get employment also. They walked about all day and were unsuccessful in getting work or a lodging. As night approached, the girl—who had tried to strangle herself four days before—asked him to commit suicide with her, to which he agreed. They tied themselves together and jumped into the river, but were rescued. I did not have an opportunity of examining the girl, but the lad showed no indications of insanity. His personal and family history were free from insanity, epilepsy, alcoholism, or crime.

A word may here be said concerning cases of attempted suicide by drowning. A large number of the attempts were made by jumping into the Thames from the bridges. I think cases from all the London bridges are included in the 1,000 cases—several each from Westminster, Waterloo, Blackfriars, and London bridges. The reader may perhaps know that, particularly at low tide, the last three are at a very considerable height from the water level, and a leap from one is not lightly to

be undertaken, apart from any risk of drowning. Now of the 1,000 cases, 193 were attempts at drowning, some more serious than others, some in ponds or canals, but one has been struck by the considerable number of serious cases that have been saved. Doubtless this is in large measure due to the alertness of the police, but however vigilant they may be, I do not think they would save so many did not the would-be suicide become frequently unconscious on reaching the water from syncope caused by shock or fright, or concussion from collision with the surface of the water. Not long since, walking over Westminster Bridge I saw the body of a man who had just jumped over floating face downwards past the Houses of Parliament, and watched the rescue, which took some appreciable time. The man was taken to St. Thomas's Hospital and in two days was remanded to Brixton. He made the attempt when out of work and intoxicated and remembered jumping over the bridge, but became unconscious on reaching the water—a fact which apparently saved his life as he could not swim, and, being unconscious, could not struggle.

*Domestic troubles.*—The 120 cases arising from domestic troubles of various kinds fall into three main divisions : those due to temper, those committed to gain sympathy from, or frighten relatives, and those due to love troubles. As an example of an attempt due to temper, one may quote the case of a young man, æt. 26, whose last employment three months before had been as a fish fryer. He was married and his wife was expecting her first confinement. As he was earning nothing and could not keep her she was living with her mother, and bitter quarrels resulted as he was blamed for not getting work, being told he did not try. After one of these quarrels he took up a table-knife in a passion and cut his throat. He had not been drinking, was not intemperate, epileptic or insane. He was much astonished at being arrested.

Many reasons are given for endeavouring to frighten relatives by making suicidal attempts, the commonest being to stop a wife nagging, to get a wife to return home or to take her husband back, to prevent a wife getting a separation order from her husband, to stop her drinking, to get her to give up her lover, etc. At times to gain sympathy or avoid blame when losing employment through bad conduct or the committal of some crime, to pretend penitence, etc. A chair-maker, æt. 42,

earning 30s. a week, who had never been in prison before nor fined, who was temperate, and had no insane or epileptic personal or family history, but who had a high arched palate and an impediment in his speech, lived with his wife and two children, æt. 13 and 7½ years. He had quarrels with his wife on account of her "carrying on with the lodger," and gave reasonable grounds for his suspicions. He told a friend that he intended taking some laudanum unless she altered, which would not kill him, but might frighten her. On again receiving grounds for protest with regard to his wife's conduct he took a pennyworth of laudanum.

The love troubles are of various kinds—the jealous lover, the jilted lover, a lovers' quarrel. Examples of these occur as might be expected. They may terminate not only in attempted suicide or suicide, but also in attempted murder or murder. I have included in these cases those attempts which occur on the eve of the wedding day—due to fear of impotence, in one case on account of a varicocele in a neurasthenic; or due to the belief that a life of unhappiness was about to be entered on; and sometimes, when a man has deceived a girl into the belief that he has saved money and got a home ready for her when he has not done so, fear of detection.

A youth, æt. 22, earning 10s. a week and living with his parents, had been going out with a laundry girl of 19 years for some months. He became very fond of her, and one evening had a quarrel with her, being jealous of "another chap who lives in the same house as she." During the quarrel she told him she would have nothing more to do with him. As soon as she said this he made up his mind to commit suicide, but said nothing. After a restless night he went to work the next day, and borrowing sixpence from a friend left his work, bought some oxalic acid, went home and there took one pennyworth in the wash-house, preferring at the time death to life without her.

The majority of cases of this class are found in adolescence; examples, however, occurring in full maturity are not uncommon. Attempted suicide before marriage is probably more likely to occur after adolescence is passed. Here, as elsewhere in this paper, the remarks only apply to male cases. Particularly with regard to love troubles it may well be that the age-incidence is different in the two sexes, the love of women differing so materially from that of man.

*Feigned attempts.*—Sixty-one cases were definitely feigned suicidal attempts made for some ulterior purpose. No case has been put into this group if there was any doubt as to the motive. It is probably an under-estimate.

A sawyer, æt. 31, married and living with his wife and four children, the eldest being 9, had been out of employment for five months. He had been earning about 10s. a week hawking. He had once been imprisoned as a debtor, but never for any criminal offence. He had never been in an asylum, had no insane relatives, was not epileptic, and as far as could be ascertained was not intemperate. He made several superficial scratches on his neck over his throat with a table knife. He stated he owed £5, had earned no money the previous week, and he felt depressed, the more so as a child was lying ill at home; so he made up his mind to do it "to advertise his case and try in this way to get help or a regular job."

Thirteen of the feigned attempts were made to get shelter in prison, and so correspond to cases of petty crime, theft, wilful damage, giving false fire-alarms, false confessions of crime, etc., which not infrequently are committed with this idea. The persons committing these offences are generally not insane; some are weak-minded, others genuine out-of-works, many lazy "work-shys." Of this nature is the following: A single man, æt. 30, who had no occupation apparently but loafing and begging, stated he had been twelve times in prison for begging, refusing to perform his workhouse task, etc. He alleged that from seventeen years of age to twenty-one he was in an asylum suffering from delirium tremens. There was really no evidence that he had ever been insane. He admitted he had not really tried to get work. He went up to a police officer with a knife in his hand saying he was going to kill himself. Under observation it became clear he was malingering insanity—delusions of persecution—and there was no doubt that he was essentially lazy, and made the threat to get temporary shelter in prison.

*Fear of imprisonment or on arrest.*—The mental attitude of a man who on the impulse of the moment attempts suicide to avoid arrest, imprisonment, or maybe the death sentence, is easily understood. Shame, fear, remorse, shock at suddenly appreciating the danger that has been incurred, erroneous ideas as to prison life, all combine to produce this result. At times the mental condition is confused by drink, but in 41 cases

alcohol played no part. In some, worry at merely being summoned to attend a police court on a trivial charge sufficed. As a general rule the more serious the crime the stronger the tendency to a suicidal attempt, and offences against the person—usually crimes of impulse from murder to assault, sexual offences, etc.—are more likely on arrest to be accompanied by an attempt than offences against property. Of the 41 cases in which the attempt at suicide was due to fear of imprisonment or of arrest it was found that of—

Offences against the person there were 22 cases

"	"	property	"	13	"
Various summonses	"		"	6	"

Although the figures are small they are of interest, in that so far as they go they are in accordance with the observation which Sir Herbert Smalley, the Medical Inspector of Prisons, makes, "that criminals who have committed impulsive offences, and especially offences expressing morbid or destructive impulses, seem peculiarly prone to suicide" (21).

A youth, æt. 20, with a good character and good medical history, but whose sister had killed herself, shot at the man he believed to be the lover who had seduced her. Thinking he had wounded the man, if not killed him, he turned the revolver on himself, inflicting a severe wound in the head, from which he recovered. The individual at whom he fired was not injured at all.

*Business worries.*—The majority of the 1,000 cases were drawn chiefly from the working classes. The twenty-seven cases of attempted suicide due to business worries are furnished by small tradesmen generally, the depression being brought about usually in a similar manner to that which obtains in cases of unemployment, with which they can be compared. A man, æt. 69, married, living with his wife, and having no children, attempted one morning to jump into the river over Battersea Bridge, but was seen and prevented. He had once been fined for furious driving; his father was intemperate, and an uncle insane. He had kept a fishmonger's shop for fifteen years, but for the last two years the business had been going wrong. He could not collect his bad debts, customers fell off, he could not pay his rent nor stock his shop properly. His creditors were pressing him for money, he did not know which way to turn, and had been thinking of suicide for some time. He left home early on

the morning of the attempt ostensibly to go to the market and buy stock, but not having enough money to do this made the attempt instead.

*Depression from various causes.*—This, the next group of twenty cases in Table XX, contains various causes for the suicidal attempt, such as bereavement, illness of wife, feared loss of employment, physical pain, and bodily disease. Influenza was a sole or contributory cause of suicide in twelve out of 1,000 cases, and, as might be expected, heads the list of ailments. Phthisis was responsible for eight attempts, cancer one, pneumonia two, pain three. When, however, these conditions acted alone the figures as seen from this group in the table are different, *viz.*, influenza 6, phthisis 5, pain 2, cancer 1, the higher figures being the sum of such cases in various groups. Bereavement similarly was, wholly or partially, responsible for eight suicidal attempts. Only one case was wholly due to this cause and appears here, the other cases being in other groups. In one case a man made the attempt on the evening of the day of the funeral of a near relative, another also similarly when he became intoxicated after trying to cheer himself up subsequent to the burial. Bodily disease causing an attempt is seen in the case of a barman, æt. 35, who cut his throat with a razor. He had no financial or love trouble, was in employment, but feared losing it on account of his health. He had been under treatment at a London hospital for three months for hæmoptysis. Feeling well he ceased attending, but in seven weeks felt he was going back again. He began to sleep badly, worried over his health, and on the morning of the attempt suddenly made up his mind to end all his worries and suspense. He had very slight signs of disease at the right apex.

Somewhat analogous would seem those attempts due to panic, *e.g.*, a man already depressed from being out of work got into this condition when bitten in the hand by a dog; fearing he would go mad, he attempted suicide. Another, a border-line case, suffered from cardiac pain and throbbing in his head due to aortic disease. He thought he would be obliged to give up his work, and become dependent on his father; he then commenced to sleep badly but ate well. Ultimately the fear of impending insanity caused him to cut his throat with a bread knife.

*Other causes.*—This is a small group of seven cases, differing only slightly from the preceding in that the attempt was due to impulse without any very definite depression, and embraces those cases due to shame by itself, uncomplicated by fear of imprisonment, etc. A lad, æt. 18, stole some money from his employer with whom he lived. On the theft being discovered he returned the money, but was dismissed. Ashamed to go home and tell his parents, on approaching the Thames the sight of the water suggested suicide; he made a serious attempt at drowning, but was eventually rescued.

*Weak-mindedness.*—Forty-six weak-minded males attempted suicide. In general the causes which led to these attempts were similar to those met with in other groups. The amount of stress which produced the attempt was occasionally less than usual, in some cases ridiculously trivial. A stonemason, æt. 22, earning 22s. a week, slightly weak-minded, was teased by his fellow workers about his personal appearance and his illegitimate child. This went on for some time, and one day some verses were made up on these subjects and hung up in the workshop. As soon as he noticed this he became angry, left the shop, and jumped into a river near by. He had never thought of suicide before.

Sudden responsibility was the predominant cause in a weak-minded man, æt. 50, who with his brother had a small shop, the brother managing the shop, he doing the housework and the cooking. He was hemi-parctic after an attack of scarlet fever in childhood. All went well till the brother had to go to hospital for appendicitis, when the accused was left in charge of the business. He became so worried and depressed that after three weeks he suddenly cut his throat with a razor; as soon as he had done it he regretted it and tried to stop the bleeding. The wound was a severe one and necessitated tracheotomy.

On the other hand, it is somewhat surprising that the number of weak-minded was not greater considering the existence these unfortunate people lead in a large city, and the hardships and privations they undergo on account of their difficulty in finding or keeping employment. Probably they have been so buffeted about from their earliest years, and their standard of living has become so low, and their expectations so limited, that very hard times are to them the ordinary



state. In more than half of the forty-six cases the attempt was impulsive; this would be anticipated when one considers how irritable they may be, and how unpremeditated their actions often are. Easily affected by alcohol, sixteen—34·7 *per cent.*—were directly or partially due to this. This is rather below the percentage for the 1,000 cases, *viz.*, 39·3 *per cent.*

*Neurasthenia.*—In all eight cases were diagnosed as neurasthenia—one, a traumatic case, according to some authorities, would be called “traumatic hysteria.” Another case resulted from neurasthenia and destitution combined. The remaining cases were of a similar type to the following: A lad, who lived with his father, a tailor, and who himself earned 25s. to 30s. a week also as a tailor, threatened to end his life by taking carbolic acid, but was prevented. He was unmarried and had no love troubles, no debts, had not quarrelled, and was free from the ordinary anxieties of life. No history of insanity, epilepsy, or intemperance in himself or his relatives could be obtained. Twelve months previously he had lost his employment on account of ill-health, which appeared to be an attack of neurasthenia. Some months later he again broke down, felt ill, weak, easily fatigued, nervous, apprehensive, irritable and depressed. There were no delusions or hallucinations, memory and judgment—apart from that on his condition—were good, as were perception and ideation. The bodily movements were not sluggish; there was no delay in answering questions. He complained of biliousness and headaches, and that his inside felt weak. He went to work one day, but came home shortly after, feeling too ill to continue, and remained at home the next day, and the following day was about to make the attempt. He was slightly anæmic, but his general health and condition were good. He slept well and ate well. Apart from his condition of health he had no cause for suicide.

*Epilepsy.*—Ten cases of attempted suicide were more or less connected with epilepsy. In one the attempt was probably an accident, and not due to any epileptic impulse. Two were complicated by alcohol, and to this the attempt was probably due. Three cases occurred in epileptics who were weak-minded, one a deliberate attempt when out of work, and two in whom the attempts, as far as could be ascertained, were committed during an automatic state. This also appeared to

be the cause in two other epileptic cases who were not weak-minded. In two cases the attempt was possibly committed during the transition stage between sleeping and waking.

A man, æt. 36, married, with two children, had cut his throat previously when his wife left him, had been remanded, and when sent for trial bound over. A few months before the present attempt he had been under remand on a minor charge, and our case papers showed he had had epileptic fits when under observation on these occasions. The epilepsy dated back nine years, and appeared to be possibly connected with a head injury. A few days before the present attempt his wife left him, probably because he had been out of work for ten weeks. The children, one æt. 4 and the other æt. 2, kept on crying for their mother and for food, and he was a good deal depressed in consequence, but was definite that he had not thought of suicide. He had not been drinking. He was found with his throat cut, and a witness stated he was in a fit when found, but how much importance to attach to this was doubtful. He denied he had any recollection of making the attempt; repeated examination failed to change this, and, indeed, there was no reason why he should not have been truthful on the matter. The attempt, after full consideration, was thought to have been made during epileptic unconsciousness.

More complicated from a medical, and also a medico-legal point of view, is the following: A labourer, æt. 46, earning 20s. a week at the time of his offence, jumped over Westminster Bridge one winter afternoon, and when rescued tried to get into the water again. He was married and had six children, two of whom earned their own living and contributed to the support of the home. There was nothing of note in the family history. He himself had been a heavy drinker up to two years before; since then he had, he said, been only a moderate one. He had never had delirium tremens, nor been in an asylum nor under mental observation before. He had once been fined for drunkenness fourteen years previously. Fifteen years before he had received a head injury from a runaway horse, but nothing definite was made out as to the nature of the injury then received. There was no paralysis, and the special senses appeared normal with the exception mentioned below. For the last five years he had had attacks in which he became confused, dull and stupid, and could not collect his

thoughts. These attacks were invariably accompanied by an olfactory sensation, which he described as "the smell of vapours like burning." This sensation was stronger when the attack came on during the night than when it occurred by day. His wife said that during the attacks, which lasted from a few minutes to an hour, he would know nothing. They appeared about every three weeks, but on being treated at an hospital with bromides the interval lengthened to nine weeks, to become more frequent as the bromide was discontinued. There were no convulsions at any time. His memory was thought to be failing, and he had noticed for some time he was more easily affected by alcohol. He had only had a little casual work for months till six weeks before the attempt on his life, when he obtained employment which would have lasted another month. During the period of stress he had not been getting sufficient food, had become depressed, and for two months had been thinking of suicide. The day of the attempt he had a tiff with his wife when he was in drink and remembered the quarrel. He had no recollection of jumping over the bridge, but remembered struggling in the water. The quarrel with his wife seemed to be the determining cause acting in conjunction with alcohol in an epileptic subject.

The two following cases seem worth mentioning, and this a fitting place to include them :

A soldier, æt. 21, with an excellent service record, popular alike with officers and men, who enjoyed military life and had never been in an asylum and had no insane relatives, and was not known to suffer from epilepsy, had been feeling out of sorts for about two months with headache, anorexia, and slight depression. He made no complaint, not wishing to upset his chum's furlough. The day before the attempted suicide, instead of going on duty, for no reason he went for a bicycle ride, the details of which were not clear. He had some recollection of spending the afternoon with his sweetheart and leaving her about 10 p.m. He stated he had no recollection of returning late to barracks, but there was some knowledge of what had occurred as he realised he would be reported for being absent without leave. On getting to bed he slept, and on awaking about 6.30 a.m. found he had just cut his throat with his razor, which was kept on a shelf at his bedside, and which he had only to lift his hand to get. He had no recollection of doing it, and no con-

scious intention of committing suicide. He was not intemperate and had not been drinking. He was subject, he said, to nightmare and night-terrors, and this with the confusion which had existed the previous day accompanied by his erratic conduct, quite foreign to him, made one suspect epilepsy. No account could be obtained of what he had dreamt that night, or if he had dreamt at all, but the possibility of the attempt being due to a hypnagogic condition was considered. He had no worries, anxieties or troubles, there was no reason to doubt his veracity, and the antecedent depression was so slight that it did not seem to have any bearing on the case, although one fully appreciates how trivial this may be to cause suicidal acts.

An epileptic, who, when he came under observation, was 35 years of age, started having fits infrequently when 15; they appeared about once a fortnight. He had no worries or troubles or any anxieties except the epilepsy. He was not depressed, had not been so, had never thought of suicide and was temperate, but immediately on waking one morning cut his throat, and remembered doing it. He had had no fits for some days before or after, and was at a loss to understand his act. As far as he could tell it was not instigated by any dream.

*Border-line cases.*—Cases are frequently met with in remand prison work which cannot be classified as insane or weak-minded, but which are border-line cases. Such are met with in almost every form of crime and usually are cases in which mental disease is in its earliest stage of onset. With reference to suicidal attempts they are generally cases passing from melancholy to melancholia. There is depression more or less marked with sufficient cause for depression, but the reaction is somewhat excessive, yet not so excessive as to justify the opinion that actual mental disease exists at the time, but sufficient to warrant the judgment that it will develop before long unless treatment is adopted. A few were apparently exhaustion cases. It is difficult in a pen-and-ink thumb-nail sketch clearly to place before the reader the type of case considered as such in this paper, but out of 1,000 cases 18 fell into this group.

As an example may be taken the case of a youth, æt. 18, an alien, who had lived nearly all his life in England. He was a Jew of humble origin, in whom ambition, so often met with in this race, was well marked. At school he had gained several

scholarships, and hoped and expected to gain an entrance to one of the older universities with a science scholarship. In this examination, however, he failed, and was in consequence naturally depressed. With little interval for rest he again commenced to work for the next examination, and harder than heretofore. At his books or in the laboratory he spent eighteen hours a day, never slept more than four hours, and his meals were sketchy. This overwork increased the depression, he began to consider himself a failure, as the examination he had not passed was the first he had ever gone in for without coming out first on the list. In about two months the depression culminated in a suicidal attempt. He shot himself in the head with a revolver bought the same day, and took some arsenious oxide which he obtained from the laboratory. Taken to hospital he was treated, the bullet extracted next day, and on the fifth day after the attempt was received at Brixton. He was well nourished, slightly anæmic and somewhat depressed, but the depression was not marked; the facial aspect was not one of misery. He ate well, slept well, was well nourished, constipation and indigestion were absent. The bodily movements were not slow, questions were answered readily. There were no delusions or hallucinations, perception and ideation appeared normal, he was not disorientated. There was no motor restlessness nor resistance and no muscular weakness. Memory and attention were good. There was slight introspection, but he would occupy himself in the ward. There was some slight effort in starting a conversation, but probably not more than is often met with when strangers converse. The attempt on his life was not impulsive, he was genuinely remorseful for his act, and on discharge there was no reason to suppose he would repeat it. To those who examined him he appeared to be more accurately described as a border-line case, and there would have been great difficulty, at any rate when seen by us, in filling up a certificate of insanity satisfactorily.

*Insanity.*—In Table XX it is seen that insanity, the border-line cases, the epileptic, the neurasthenic and the weak-minded total together 205 cases. Insanity alone was responsible for 123 cases. I have not considered the alcoholic cases as being insane when the individual has been temporarily drunk. If the border-line cases, in whom different opinions as to the presence or not of insanity may legitimately exist, be included

with the insane, the total is 141, *i.e.*, 14·1 *per cent.* Dr. Wynn Westcott, in his book on suicide (17), states that in all the cases of suicide he has observed, and in all those cases upon which he has held inquests, he found that in 20 *per cent.* only had the deceased ever exhibited symptoms of insanity obvious to the friends and relations. As simple melancholia, however, frequently exists without knowledge of the relatives, this figure may be an under-estimate. The Berlin correspondent of the *Lancet* (22), quoting from the statistics in Prussia for 1911, states: "About 25 *per cent.* of suicides are said to be caused by insanity." There can be no doubt that insanity causes more frequently suicide than abortive suicide. Alcoholism, on the contrary, is said to cause more attempts, it being argued that the mental confusion and muscular inco-ordination prevent success. This, whilst probably true to a certain extent, would not appear to be a matter upon which too much stress can be laid, for very grave attempts resulting from alcohol are frequently seen, and many murders arise from the same cause.

It must be remembered that the majority of the cases were only remanded for a week and then passed from our observation, and whilst usually a week suffices to determine the presence of insanity, it is often not long enough to form a definite opinion as to the form of insanity, particularly in that, as a rule, no information and no history of the case can be obtained. Many cases are complicated by alcohol, and until this effect has passed off the real mental disorder may be masked, and so only a provisional diagnosis is made. The 123 cases thus fell into the following groups:

Delirium tremens	.	.	.	.	.	9
" " probably	.	.	.	.	.	4
Alcoholic insanity	.	.	.	.	.	20
Melancholia	.	.	.	.	.	44
" with delusions	.	.	.	.	.	39
Stupor	.	.	.	.	.	3
Delusional insanity	.	.	.	.	.	4

The patient may purposely withhold facts which are necessary to form an accurate diagnosis. A man, *æt.* 63, was received, having shot himself in the hard palate with a revolver, which had been in his possession for four years. Ten years previously he had been in an asylum for six months

for depression, following bankruptcy ensuing from a lost legal action. His business had been failing and he stated he had been getting depressed in consequence. He had four children married, five dead ; he lived happily with his wife and one daughter he informed us, the house belonging to his wife, and she taking in boarders to support them. He shot himself on his son's grave some distance from home that his wife should not be distressed by his body being brought there. Being sent for trial he was under observation six weeks and his account never varied, and nothing more could be got out of him. His depression was thought to be due to financial worry and arterial degeneration. Two and a half years later he again came under observation, charged with an assault on a lodger. Systematised delusions were then found to be present, centralising round the belief that his wife, æt. 68, and his daughter were repeatedly committing adultery with the lodger. Many other delusions existed of a similar nature. He admitted that this belief really was the cause of the suicidal attempt when he was with us before, and that he had stated an untruth when he had said he was happy at home with his wife.

The causes of the attempts in the insane were chiefly—Utter misery, sudden impulse, which was conscious, partially conscious, or unconscious, fear of bodily injury or being killed by persecutors, to put an end to malicious statements about themselves ; to be free from offensive epithets hurled at them, being too wicked to live, having sinned past God's forgiveness, imaginary stoppage of the bowels causing slow death, in obedience to voices, in obedience to a command given "by a confusion of faces," to avoid an imaginary legal action, fear of being killed or charged with a recent child murder then rather prominently before the public, fear of being poisoned and accused of serious crime, lost sexual power, having syphilis and being contagious (the syphilis was scabies), imaginary infidelity of wife, fear of punishment for imaginary wickedness, fear of plots made against them, fear of "being cast into the sun," etc. The method of attempt in the insane cases has already been shown in Table XVIII. Two cases were somewhat bizarre in the means adopted. One man repeatedly struck the top of his head with a heavy hammer. Another spent considerable time in producing what he believed to be a rapid poison, which he eventually made, he said, by mixing

bichromate of potash, chloroform and sugar. He first gave some to his wife, and he stated she did not die for fourteen hours, so he only took a small quantity himself, hastening his own end by cutting his throat severely ; he was, however, saved. He stated with probable truth that they had agreed to die. They had only been in England a short time, having left America on account of their imaginary persecutors. He was a charming old man who evidently loved his wife dearly, but he had systematised delusions to which the murder and attempted suicide were due, and Dr. James Scott gave evidence at his trial for murder that he was unfit to plead. Dr. W. H. Willcox, the official analyst to the Home Office, estimated that 32 grains of bichromate of potash had been taken by the wife (23).

Of the insane cases seven had made homicidal attacks, four being charged with attempted murder, and three with murder. In one insane patient the attempt was suggested by the act of shaving ; this occurred twice in sane patients. In not a few the sight of water determined the method of attempt by drowning ; this happened in the sane cases also. One case of hanging in a sane patient was due to the man first having read in the newspaper of a double execution.

In both sane and insane patients the attempt was frequently immediately followed by remorse. Indeed, in some insane cases it seemed to be the starting-point of recovery.

The causations of the suicidal attempts have now been reviewed in some detail. The question as to how they compare with that for suicide is not easy to determine. The most recent figures on this subject of which I have any knowledge are the French (10). According to the information given under this heading, 21 *per cent.* are attributed to physical sufferings ; affections of the brain, 15 *per cent.* ; misery and reverses of fortune, 13 *per cent.* ; drinking bouts and habitual drunkenness, 12 *per cent.* ; domestic troubles, 9 *per cent.* ; love troubles, 4 *per cent.* ; debauch, misconduct, 2 *per cent.* ; other causes and causes unknown, 24 *per cent.* There is, therefore, considerable difference in the motives underlying suicide in France and attempted suicide in England. Probably no true comparison can be drawn between the two, the national characteristics being so different.

*Treatment of attempted suicide.*—In the earlier part of this paper I have spoken of the methods of treatment adopted in



cases remanded for this offence, and have urged that the medical and moral remedies then administered are of benefit in the non-insane cases. But treatment should be preventive. Surely a more general extension of mental out-patient departments at the large hospitals would be beneficial, and would not a mental hospital for uncertified cases of early mental disease do much? Even then our complex civilisation, ever increasing the struggle for existence, and ever eliminating the unfit, will keep the numbers high. By improvements in social and economic conditions, by diminishing intemperance of all kinds, by the cultivation of robust religious convictions, and by causing our youth to become more tolerant of discipline—it is on these lines that preventive treatment would seem to hold out most prospect of effecting improvement.

### *Conclusion.*

The main inferences suggested by these observations may be summarised as follows :

(1) It is an advantage to retain attempted suicide as a misdemeanour.

(2) Attempted suicide and suicide are both adversely affected by unemployment and drunkenness, the latter possibly causing more attempts than suicides. Both are similarly affected by the seasons, being more frequent in the hot months.

(3) Attempted suicide and suicide differ in the time of day in which they most commonly take place, in the age-incidence, and in the methods most frequently adopted ; and whereas attempted suicide is only slightly influenced by the civil status, actual suicide is markedly affected.

(4) The family history of attempted suicides shows that in 27·10 *per cent.* there was parental intemperance, insanity in 10·2 *per cent.*, epilepsy in 0·6 *per cent.* Of the 1,000 cases themselves 2·9 *per cent.* had been previously insane. Probably all these figures are understated.

(5) Physical disease is not by itself a common cause of attempted suicide. At least in France, suicide appears to be frequently due to physical suffering.

(6) The commonest cause of attempts at suicide are alcoholism, unemployment and destitution, insanity, domestic troubles, morbid mental states not amounting to insanity, and

attempts made for an ulterior purpose. Frequently more than one cause exists at the same time.

(7) When an alcoholic impulse acts alone in causing an attempt it is more often amnesic, when acting with other causes memory is usually retained. Alcohol incites attempts from impulse, post alcoholic depression, weak-mindedness, and insanity. An attempt during a first intoxication is very rare. In 39.3 *per cent.* of the cases alcohol was found to be wholly or partially the cause of the attempt.

(8) Unemployment is more likely to cause an attempt than destitution. Physical exhaustion is an important contributory cause in these two conditions.

(9) Of persons who were charged with committing crime, those whose offence was against the person more frequently attempted suicide than those whose offence was against property.

(10) In the weak-minded the attempt may result from very trivial causes, but the reverse not infrequently holds good.

(11) Insanity is more likely to cause suicide than attempts at suicide. In the latter 14.1 *per cent.* were due to this cause, the commonest forms of insanity being states of mental depression and then alcoholic insanities.

Finally, let it be said that no claim to anything new or original is made for this paper. Such cases, burdened with tragedy, and alas! too often with folly, as have produced these remarks are within the common experience of prison medical officers; of such in no small measure does their daily work consist. I have, however, presumed to hope that the alienist may find herein somewhat to interest him, in that it represents attempted suicide as seen in a remand prison. And, in hesitatingly submitting it to the readers of this Journal, I have been mindful of the instructions of Gobind the one-eyed: "Tell them first of those things that thou hast seen and they have seen together. Thus their knowledge will piece out thy imperfections" (24).

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*Moral Insanity.* By ROBERT HUNTER STEEN, M.D.  
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AT the present time when the Mental Deficiency Bill is before Parliament a discussion on the above subject may be of some interest to the readers of the *Journal of Mental Science*.

The term "moral insanity" embraces, as will be seen later, numbers of cases which can be classified into different varieties, and in the present paper the intention is to deal mainly with one class of case provisionally termed the class of moral defectives.

It has been thought inadvisable to give clinical records of particular patients, many of whom are alive, with any fulness, for reasons which will be self-evident, but on looking over my notes and combining them I find the following crimes against the moral code included in their histories: Thieving of small articles since childhood. "A confirmed liar." Attempted

poisoning of members of the family. False accusations against young men, thereby almost ruining them. Buying goods without payment and giving wrong names and addresses. Hiding clothes in order to have new ones purchased. Stealing and selling clothes. Upsetting the discipline of nursing-homes and private houses by lying gossip. Running away from school and making false accusations against the school authorities. Threats of suicide. Hunger-striking. Thefts at hotels.

This is an account condensed out of many pages of history supplied to me by the relatives. The amount of misery which can be caused by the plausible and frequently clever lies told by these patients which have no apparent motive and are therefore believed can hardly be realised. Characters of harmless people are blasted and their careers injured. A domestic circle, which has enjoyed peace and harmony, when it harbours such a case becomes full of jealousies and troubles, masters are turned against servants, servants against masters, husbands against wives.

It is like the small piece of grit in the engine-bearing, which only ceases from troubling when the offending cause is discovered and removed. The males are the ne'er-do-wells who are tried in colonies, and who beg, borrow or steal money to pay the return passage and again haunt their unfortunate relatives.

*Ætiology.*—It is difficult to ascertain how common such cases are. The figures contained in the blue-book of the Commissioners in Lunacy apply to all cases of moral insanity, but probably most of these are moral defectives.

These figures show a yearly average admission of 29, in the proportion of 17 males to 12 females.

Among "private" admissions they number 3·5 per 1,000 admissions and 1 per 1,000 in the "pauper" class, indicating that they are more commonly met with in the educated classes.

As a rule there is a family history of neurosis or insanity. In one of the cases summarised the mother's aunt and the father's uncle died in asylums, in a second case a maternal aunt is insane, and in a third the father is a man in disgrace in his profession. I could ascertain no other ætiological factor, and the prevalent view is that they are congenital in origin.

Maudsley states that in his opinion it seems probable that

in young female cases the perverted moral sense is somehow connected with the action of the reproductive organs on an unstable nervous system, because it is mostly met with in unmarried women, is prone to exhibit erotic features, and is sometimes cured by marriage. I cannot assent to this view, and certainly the sex distribution is not borne out by the Commissioners' figures.

*Physical and mental state.*—On admission there was little to attract attention. In general appearance they were well up to the average in looks. One was rather younger-looking than her age; another had a slightly vacant expression; a man was distinctly good-looking. Stigmata of degeneration were absent. They were all accomplished in various ways—in music, needle work and games.

In looking over the case-book notes the records are chiefly of a negative nature. At times the patients were detected in petty falsehoods of no great moment in an institution where their illness was understood. Occasionally articles such as knives from the dinner-table would be hidden, with the resultant anxiety and trouble. But on the whole these patients were attractive and great favourites with the staff, many of whom pitied them, and probably privately believed that detention was unnecessary. One point should be emphasised—the patients were not erotic. It is true lies were told about young men behaving with impropriety, but I believe this was done not from erotic feeling so much as from the desire to tell a falsehood, which would appear to be with them a natural disposition.

*Diagnosis.*—As the reader will have realised, the diagnosis has to be made from the history. I know of no condition in the "present state" which will assist in the diagnosis if the patient persists in a denial that those things reported of him or her are false. Often an admission can be obtained that the statements in the history are true, and then the lack of ability to give reasons for such behaviour leads to the true conclusion as to the nature of the case. The points in the history upon which stress must be laid are as follows: (1) The crime is frequently perpetrated with no attempts at concealment. For example, a girl stole a quantity of valuables at a hotel and sent them as a present to her sister-in-law. (2) There is a lack of rational motive. For example, a man stated that he wished to bring disgrace upon his family, because he desired his mother's

love, which was being denied him. (3) Frequently no apparent motive is present. For example, a girl left her bed during the night, scattered the food in the larder, and then had the police called in to investigate the supposed burglary. (4) The crimes may occasionally be committed on the impulse of the moment, but as a rule they are carefully planned out beforehand.

Every variety of mental disease may be associated with immorality (using the word in its widest sense). For example, one of the first signs of general paralysis may be the commission of petty thefts, etc. Similarly in cases of mania, epilepsy, dementia præcox, organic dementia, etc.

There are also cases of pronounced idiocy and imbecility with criminality. There will be no difficulty in differentiating these cases from those under consideration. Obsessional insanity with irresistible impulses must not be confounded with this class of case. The former realise their illness and freely confess their desire to abstain from wrong actions, but their inhibition is weak.

With regard to such cases as kleptomania, pyromania, etc., the matter is one of greater difficulty. Some of these come under the heading of irresistible impulses, others belong to the present group.

*Treatment.*—These cases should be sent to a mental hospital. They are not so difficult to manage as the history would lead one to expect. They must be treated with firmness, and any display of temper met with by a few days' rest in bed. After a few weeks they adapt themselves to the institutional routine and have an excellent time, as they are usually proficient in games and amusements. Much suffering would be saved if the cases were recognised earlier and dealt with in this way. Difficulty is often experienced in obtaining sufficient material to form a certificate, but if there is a family physician and he has some knowledge of mental diseases he will be able to solve the problem. A greater difficulty is the question of continuing the certificates after the patient has been in an asylum for some time, and the result is he has to be discharged. This is not, however, to be deplored, because it is well that these people should have a trial in the outside world, where they do better than expected. One case discharged nearly four years ago is doing well. On the other hand, a man committed suicide a year after his discharge. I have tried to find out fuller details

with regard to this case, but beyond this fact the friends decline to give me any further information. Still, I adhere to the opinion just expressed and think one chance should be given. If this is unsatisfactory the repetition of the process of obtaining the magistrate's order is rendered much easier by the precedent of the previous certification.

*Literature.*—Almost every book consulted refers to Prichard as one of the earliest writers on this matter. The outcome of consulting his book, *A Treatise on Insanity*, 1835, was disappointing, as in the main Prichard's moral insanity has but little in common with moral insanity as at present understood.

Prichard's classification of mental diseases was as follows :

- (1) Moral insanity or insanity without delusions.
- (2) Monomania.
- (3) Mania.
- (4) Incoherence or dementia.

The three last, he stated, may be termed "intellectual insanity in contra-distinction to the first variety in which there are morbid perversions of the mind without any remarkable disorder or defect of the intellect or knowing and reasoning faculties, and particularly without any insane illusion or hallucination."

On another page he states—"The morbid phenomena in the cases of disease which I am now attempting to describe extend only to the state of the feelings and spirits, the temper, the preternaturally excited sentiments of hope and fear, and the results which these influences are calculated to produce in the mental constitution." As illustrative cases he gives the following :

Those in which a change of character takes place after severe shock or some disorder affecting the head or after a slight attack of paralysis, epileptic fit or some febrile disorder which has produced a permanent change in the constitution.

Another case given is a case of mania with strong homicidal propensity.

He says a considerable proportion among the most striking instances of moral insanity are those in which a tendency to gloom or sorrow is the predominant feature, and then follow cases which we should call cases of simple melancholia or melancholia without delusions.

The following case is one of simple mania.

Then comes a case of obsessional insanity.

To give Prichard his due, however, he does describe one case as follows: "Some insane persons display their condition by a propensity to commit every species of mischief though devoid of any feeling of malevolence. A case of this description strongly marked was lately pointed out to me in the York Lunatic Asylum by Dr. Wake, the able and intelligent physician of that institution. The individual is a youth of good temper, cheerful and active, having no defect of understanding that can be discovered after long observation. He is continually prone to commit every kind of mischief in his power, and not long ago escaped from his confinement and made his way to Bishopthorpe Palace with the design to set it on fire. Dr. Wake has assured me that several cases have occurred precisely similar to that above related in all essential symptoms during his superintendence of York Asylum, which has continued eighteen years." This is the sole reference to the moral insanity as we understand it in fourteen pages devoted to this subject.

His moral insanity includes "all the examples of madness without delusions reported by Pinel." To summarise, then, Prichard divides diseases of mind into two classes—insanity without delusions or moral insanity; insanity with delusions—monomania, mania, and incoherence, or dementia. He does not use the word moral in the ethical sense as the reverse of immoral.

Coming to later days we find moral insanity treated fully by numerous writers—Maudsley, Clouston, Savage and Mercier, to mention but a few. The Kraepelin school deals with this class of case under the heading of psychopathic personalities. In consulting the literature, however, it has been not without interest to note that in recent publications, chiefly American, the whole subject of moral insanity is compressed into a few lines, and this is probably owing to the influence of the present-day psychology with reference to the faculty of willing.

On the other hand, probably owing to the influence of Lombroso and his disciples, the Italian writers deal with the whole question of moral insanity with considerable fulness.

*Psychology.*—Maudsley postulates a moral sense which he states to be the latest formed product of the social sense. Speaking of moral imbeciles he says: "Education is simply powerless to implant the lines of moral structure which are congenitally absent." Speaking of a case of this kind he says



in his characteristic manner: "Its deprivation means a congenital moral deprivation."

Clouston asks the following question: Do we meet with children so constituted that they cannot be educated in morality on account of an innate brain deficiency rendering them incapable of knowing the difference between right and wrong? etc. and this he answers emphatically in the affirmative. Later authors attribute these cases to insufficient control of instincts.

The following view appears to the writer to be the most natural one: A voluntary action is a reflex action in the cerebral plane. It consists of the afferent stimulus, the central association of ideas or "play of motives," and the efferent discharge resulting in movement. In these cases, there is something congenitally absent from the "play of motives," this something being that inhibition which is present in normal people. This something is the same as the moral faculty spoken of by Maudsley. We know there are people who are colour-blind and people who are musically deaf, and though in these cases the defects are in the eye and the ear, yet we must presume, if there are end-organs for the reception of stimuli in normal people, there must also be cortical cells for the perception of the sensations arising from the stimulation of these organs. And we may, therefore, postulate a centre for music and a centre for colour. And in a similar manner I would postulate a moral sense centre, and in the class of case under consideration this moral centre is congenitally absent.

There is the idea that the immoral actions might be due to the persistence of instincts which in normal people atrophy after childhood has passed away. But against this there are the cases of moral insanity sequential to an attack of mania which would indicate that the instincts remain during life but are kept in check by the moral centre.

The psychological views herein expressed will be termed old-fashioned, yet they may be none the less true.

In this paper the expression "moral insanity" has been used in the sense used in many text-books, but it is felt that the cases under consideration require some other name and I suggest "moral defectives."

Cases of moral insanity may be classified as follows:

*Congenital:*

- (1) Moral idiocy and imbecility.

(2) Moral defectives.

*Acquired:*

(3) Psychasthenia.

(4) Moral insanity.

(1) In this class are the idiots or imbeciles who display immoral propensities. Did they exhibit no signs of moral perversion they would still be classed as idiots or imbeciles. They are the moral imbeciles in the wording of the Mental Deficiency Bill—"persons who, from an early age, display *some permanent mental defect coupled with* strong vicious or criminal propensities on which punishment has little or no deterrent effect."

(2) *Moral defectives*.—These are the cases dealt with in the present paper. Tanzi speaks of them under the heading of "constitutional immorality." They are not idiots or imbeciles and should no more be called such than persons suffering from music-deafness or colour-blindness. As already stated, they require institutional treatment, and it is a great pity that apparently they are excluded from the benefits of the Mental Deficiency Bill. If, in the definition as given above, the words "coupled with" were replaced by the words "such as" or "instanced by," the matter would be remedied. The definition would then read, "Persons who, from an early age, display some permanent mental defect *such as* strong vicious or criminal propensities," etc.

(3) *Psychasthenia*.—Irresistible impulses: I was once consulted by a woman who said that at dinner-time when she saw a knife on the table she felt she must plunge it into the breast of her child. Had she done so she might have been termed "morally insane," but such cases form a class by themselves. She dearly loved her child, she did not want to commit the murder; she hated the thought, but she was afraid the impulse would one day become ungovernable. This is an example of a case which is known as "obsessional insanity" with irresistible impulses.

(4) *Moral insanity*.—(a) Primary: This class includes the cases which are morally insane from the intoxication produced by alcohol, drugs, or the toxins of a commencing attack of some form of insanity.

(b) Secondary or sequential: This class includes the numerous cases whose moral balance is disturbed by previous attacks of manic-depressive insanity, dementia præcox, epilepsy, cerebral hæmorrhage, cerebral injuries, arterial sclerosis and such like.

The medico-legal aspect has not been dealt with, and this includes the relationship of these patients to criminals. These matters raise questions which are beyond the scope of this paper. No doubt many persons classed as criminals belong to one or other of the various divisions of moral insanity including moral defectives, but of this I have no first-hand knowledge.

As regards their "responsibility," if the surmise be accepted that these people are wanting in some attribute possessed by normal folk they cannot reasonably be expected to maintain the same moral standard. The colour-blind<sup>1</sup> driver of the locomotive who at night drives past the red signal mistaking it for green is not surely deserving of the same punishment as the normal engine-driver who commits the same crime. It may be said—"True, but the railway company should not have allowed the former to be on the foot-plate." Neither should society allow the mentally defective unrestrained liberty of action.

The words in the Mental Deficiency Bill, "on which punishment has little or no deterrent effect," are unfortunate. The colour-blind person knows that the grass is green not because he sees it green, but he hears it universally termed green, and the mentally defective learns in time what things to avoid if the non-avoidance produces institutional treatment which he regards as punishment. And so it is that sometimes these patients after a term of confinement keep fairly well for many years.

#### *Conclusions.*

- (1) That the term moral insanity as now generally employed includes many different types of cases.
- (2) That one distinct class is that of the moral defectives.
- (3) That this class would appear to be excluded from the benefits of the Mental Deficiency Bill.
- (4) That this class should be included in the Bill, as the patients require institutional treatment, which is difficult to procure for them in mental hospitals owing to the requirements of the Lunacy Acts.

<sup>1</sup> Tanzi uses the same comparison. "The character of these persons who are incorrigible in their immorality, examples of true Daltonism of ethical sentiment, is not impetuous, passionate." . . . *Text-book of Mental Diseases*, translation by Ford Robertson, p. 697. The writer had not noticed this till the present paper was under revision. If the reader desires to go fully into the medico-legal aspect he cannot do better than consult this work and Mercier on "Criminal Responsibility."

*Some Suggestions respecting the Care of the Feeble-minded under the Mental Deficiency Bill, 1913.* By A. R. DOUGLAS, L.R.C.P., L.R.S.C.Ed., Medical Superintendent, Royal Albert Institution, Lancaster.

IN dealing with any subject in connection with the burning question of the care and control of the feeble-minded, some reference will be expected to the second Mental Deficiency Bill recently introduced into the House of Commons by the Home Secretary. For the purposes of this paper it is unnecessary to do more than quote the Clause, which defines the classes of persons who are mentally defective and deemed to be defectives within the meaning of the Act. Taken all round, it is a much better Bill than its predecessor of last year, but it should be noted that in the present measure no allusion is made to the undesirability of procreation of children by defectives, or to any intention to penalise persons wittingly bringing about a marriage between defectives. These proposals, which were likely to arouse uncompromising disapproval, may be the less regretted, as their inclusion might doubtless have been instrumental in the blocking of the Bill as a whole. Their effacement, it is hoped, may do away with the opposition which is at present invariably evoked by any attempt to infringe upon the so-called liberty of the subject, and may also give opportunity for educating public opinion, so that in time it may be clear to all that the prevention of amentia can only be attained by life segregation on the one hand, and by the prohibition of marriage on the other. The promoters of the Bill have gone as far as they possibly could in the face of uneducated public opinion, and those of us who were present at the discussion of last year's measure in Standing Committee cannot but admire the courage and resourcefulness of Mr. McKenna in presenting the new Bill after the repeated discouragement which he had to face in connection with his first effort last year.

It will be remembered that the following definitions have been made which seem for all practical purposes to cover the ground conveniently, and I will quote them in full.

(a) Idiots, that is to say, persons so deeply defective in mind from birth or from an early age as to be unable to guard themselves against common physical dangers.

(b) Imbeciles, that is to say, persons in whose case there

exists from birth or an early age mental defectiveness not amounting to idiocy, yet so pronounced that they are incapable of managing themselves or their affairs, or, in the case of children, of being taught to do so.

(c) Feeble-minded persons, that is to say, persons in whose case there exists from birth or from an early age mental defectiveness not amounting to imbecility, yet so pronounced that they require care, supervision and control for their own protection or for the protection of others, or, in the case of children, are incapable of receiving proper benefit from the instruction in ordinary schools.

(d) Moral imbeciles, that is to say, persons who from an early age display some permanent mental defect, coupled with strong vicious or criminal propensities, on which punishment has little or no deterrent effect.

Before going into the question of the future environment of defectives, it might be well to mention where they are being dealt with up to the present time. They are to be found :

(1) In the special schools for defective children; although this is a step in the right direction it must be conceded that it fails in the all-important particular of proper control when not actually in school, and during the remainder of the time many of the pupils live amongst surroundings and associations of a most undesirable character. But little can be done with the feeble-minded who are not constantly under control and occupied somehow, even if only with games.

(2) In workhouses; here the cases to be seen huddled together in the ordinary workhouse ward provide a most depressing spectacle.

(3) In the lunatic asylums, where they ought not to be in any circumstances.

(4) In small homes and private establishments.

(5) In the voluntary institutions for the care and training of the feeble-minded. Here are provided a simple education and manual training. The patients, in addition to their work in the schools and workshops, are taught personal cleanliness and decency of behaviour, and their physical condition is improved by suitable drill and games.

Up to now, therefore, it will be seen that mental defectives have been dealt with in the most satisfactory manner by the voluntary institutions, but provision for by far the greater

number of them has been inadequate. It is impossible to expect that in the workhouse wards and in the lunatic asylums, where feeble-minded, imbeciles, and degraded cases are kept in association together, there can be any prospect whatever of improvement.

It is by classification alone that we can hope to secure any tangible result from education and training, and it is in relation to this that the definitions embodied in the Mental Deficiency Bill help us.

For instance, class (*a*) not only requires merely custodial care, but as practically two thirds of these individuals are feeble and delicate, special treatment is needed—they have, in fact, to be kept alive. Hence the maintenance rate of any colony or institution where their number predominates will unavoidably be somewhat high. In the first place a resident medical officer or officers would be required, and owing to the need for constant observation, and on account of the general helplessness of the majority, a large number of attendants, male and female, would be necessary. For the sick and delicate a properly equipped hospital, with a fully trained nursing staff, is a *sine quâ non*. The hospital would be the most important feature of a colony of this kind, and would have to provide accommodation for, at the very least, 20 *per cent.* of these cases.

Turning to class (*b*), which is composed of imbeciles, it may be assumed that they are in fair health, and are, more or less, capable of assimilating simple instruction; for them should be provided suitable schools and workshops, with an efficient staff of teachers and manual trainers; intelligent nurses and attendants, are all that is required for these. Highly trained certificated teachers, are not necessary; they are very costly, and it has not been found that better results are secured by them. Here inexpensive buildings would meet the case, and the routine of a community of this kind should not ordinarily be hampered or interrupted by an abnormal amount of sickness.

Members of class (*c*) could with advantage be grouped in this division; although their intelligence might be of a higher order than those in class (*b*), yet they would require education and training equally with the others, assuming that they would all be children under the age of sixteen.

Class (*d*) would obviously be dealt with in such homes or

institutions by themselves on the lines of our present industrial schools.

Such, then, is a brief outline of the proper environment for each of these classes, and the next question is how can this be secured for them at the minimum cost to the community. Generally speaking, it would be impossible at present for each county to provide for its own feeble-minded, but a combination of counties, forming associated areas, should be able to deal with the matter, aided by those institutions already in existence. These latter are the Earlswood Asylum at Redhill, Surrey ; the Eastern Counties Asylum at Colchester ; the Western Counties Asylum near Exeter ; the Midland Counties Asylum near Birmingham ; and the Royal Albert Institution at Lancaster. These institutions have been the pioneers of care and control for the feeble-minded in this country ; their experience extends over a period of forty years, their equipment is very complete, and they possess resources in themselves which would render them of immense service to the State in at least the inauguration of a universal system of care and control of the mentally defective.

Their geographical position is in itself an advantage, and considerable unnecessary expense would be saved to county authorities, as they would in some degree reduce the otherwise heavy outlay for special buildings and equipment, and their experienced staffs could be drawn upon for the purpose of manning the homes and colonies to be provided later on. There, too, teachers could be trained and newly engaged attendants could spend a short period of probation with advantage. The voluntary institutions, therefore, suggest to us as a sound working scheme that each one of them be utilised as a central institution or filtering ground, which would serve one associated area, and through which all defectives would pass before being drafted to the other homes or colonies. In a central institution like this, means would be forthcoming for thorough sifting and examination. After a sojourn, say, of from six to twelve months it would be possible to classify them pretty correctly, and to form a definite opinion as to the kind of environment best suited to each.

As an example of the wonderful results obtained by classification and judicious selection, mention should be made of the excellent work which is being done at the Darenth Industrial

Colony under Dr. Rotherham. At Darenth no patient is received unless he or she is capable of being taught to do work of some kind, and now all the available accommodation is utilised to the full for useful patients ; the general impression made by the Institution is that it is the beau ideal of what an industrial colony for the mentally defective ought to be. Another instance on a smaller scale showing the importance of selection and classification is that of the Western Counties Asylum at Starcross, near Exeter, under the able direction of Mr. Ernest W. Locke. Here the same conditions hold as at Darenth, and its success is equally remarkable. It would therefore seem that, consistent with the all-important question of finance, the care of the feeble-minded in the future can only be approached by the light of classification.

Past experience has shown that institutions which have attempted to cater for all classes of the feeble-minded under, so to speak, the one roof, have up to the present only been successful in providing suitable care and treatment for their inmates ; those patients who have improved scholastically and in manual training are distinctly in the minority, which can only be expected from the mixed nature of the classes, the many backward pupils in these being an obvious bar to progress.

One has recently heard a good deal about farm colonies. Great things have been prophesied with respect to the low cost for the maintenance of such patients in cheap buildings worked by small staffs, and it has been confidently stated that the work of the patients would almost make it self-supporting. Doubtless this might be so in a small number of instances, but experience shows that this work is not suited to the majority. For one thing it is very arduous, and as not more than 33 per cent. of the feeble-minded are physically capable of long-sustained exertion, it does not appear that the farm colony presents more than restricted possibilities.

There are other drawbacks also which need not be mentioned here.

To recapitulate, the institutions of the future for the feeble-minded must provide for absolute separation of the idiots from the imbeciles and feeble-minded. Each suggested associated area would in the near future provide custodial care and modified hospital treatment for the degraded and delicate



cases by themselves, together with a separate and distinct department, or, preferably, a separate and distinct institution for the imbeciles and feeble-minded with its own schools and workshops, which need not be unnecessarily costly, and lastly, the existing voluntary institutions should manifestly be utilised to the full. I do not hold a brief for them, nor do I wish in any way to commit my own Board of Management, but the material assistance they would render to the State in any large and comprehensive scheme of this kind is so obvious that no apology is needed for any recommendation which may be made of them to the notice of the authorities concerned.

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*The Influence of Physical Illness on the Mental State in Insanity.* By G. E. PEACHELL, M.D., B.S.Lond. M.R.C.S., L.R.C.P., Senior Assistant Medical Officer, West Sussex Mental Hospital, Chichester.

THE object of this short paper is to direct attention to certain clinical cases illustrating the effect of physical illness on the mental state in insanity, and to discuss some points in connection therewith.

It is a well-recognised fact that whilst a serious illness, such as one of the infectious fevers occurring in a sane person, may lead to a mental breakdown, especially in one with a neuropathic or psychopathic heredity, the development in the insane of such an illness will often bring about a temporary improvement in the mental condition, and in certain cases will lead to a mental recovery, and even in cases of chronic insanity it is often to be noted that there is a relative mental improvement during a physical illness.

The more acute the illness, and the more painful it is, the more likelihood there is of benefit accruing.

In our present state of knowledge of mental functioning one can only vaguely surmise how the different toxic agents produce such an influence, but it would seem possible to explain it as being due to one of two factors, or rather as a resultant of these two factors, *viz.* :

(1) The direct influence of the toxic agent as a protoplasmic poison and the promotion in the case of specific bacterial

poisons of specific antibodies in the blood, which must produce a profound effect on the intra-cellular vital reaction of the organism, and—

(2) The indirect action of the poison on the nervous system generally, and especially the effect it has in producing painful afferent stimuli to the sensori-motor cortex, and of thus acting as a powerful cortical stimulant.

The influence of mind on body and body on mind is very intimate. The physical basis of all mind is the sensori-motor cortex, and this is greatly influenced by the afferent sensory impressions it receives from every part of the body, and it is reasonable to conclude that unwonted afferent impulses, due to alteration of the chemical functions of the cell metabolism produced by the circulating toxin, are capable of inducing an "alterative action" on the cortex.

As Sir Thomas Clouston has said, "the object to be desired is to get a safe, manageable counter-irritant and fever, and so get the alterative effect of such things and the reaction and stimulus to nutrition that follow febrile attacks." Perhaps the beneficial effect of such an illness as pneumonia in causing pain, fever, and a leucocytosis is thus to be explained.

A good example of the effect of illness on the mental state is seen in the way a circulatory poison such as the toxins generated by the tubercle bacillus affects different individuals.

In the main, in the early stages of tubercle, the effect on the sane is to lead to a moody, anxious, introspective state, with irritability of temper, a desire to be solitary, and a tendency to be unduly morbid as to the future. In the early stages the "*spes phthisica*" is rarely seen, and it is chiefly in the later stages that this mental attitude is met with, and particularly when the disease is far advanced.

In the insane I have frequently noted that in early and latent cases there is this same reaction to tubercle. Irritability, quarrelsomeness, a hostile attitude, and general resistiveness and discontent show themselves, whereas when there is an active outbreak of the disease, the same patients will often show marked mental improvement, becoming docile, cheerful and grateful.

It is possible in certain cases to predict with some degree of certainty tubercle in the insane from the altered mental condition long before definite physical signs can be found. It is

probable that added infections, such as streptococci and *Bacillus catarrhalis*, in the later stages of phthisis play their part in producing an amelioration of the mental condition.

By a toxic agent I mean a substance which can be taken up by the cell and which then disorders its metabolism.

Toxic agents may be divided into (1) bacterial and (2) chemical, but all microbic poisons are in reality chemical poisons, but of a more complex nature than the chemical, inorganic and organic, substances, such as lead, mercury, alcohol, and sulphonal, whose composition can be represented by definite formulæ.

I now pass on to consider certain clinical cases I have had under treatment in this Institution, and, first, to show the influence of tubercle, I will quote the two following cases :

CASE 1.—C. P. K—, female, æt. 33, admitted November, 1910, suffering from an attack of mania. Poorly nourished, anæmic. Enlarged glands in neck. No signs of phthisis discoverable. Mentally she was noisy, excited, garrulous, and faulty in her habits. She continued in this state with little alteration in her condition till July, 1911.

A note made on August 20th is as follows: "Up to last month she remained very excited, troublesome and bad in her habits, and had become very thin from constant excitement and want of natural sleep. Phthisis, which had for some time been suspected, became evident, and with the outbreak of the disease there was a marked change mentally for the better, and she has since steadily improved and is sleeping well, putting on weight and showing good resistance to the tubercle." She made steady mental progress, and was discharged "recovered" mentally on November 17th with the tubercle arrested.

CASE 2.—V. M. B—, female, æt. 18. Admitted April, 1911, suffering from melancholia with marked stuporose symptoms. Physically well developed, but fat and anæmic. Small glands in the neck. No signs of disease in chest. Within a month she passed into a maniacal phase and continued thus till October, when she developed symptoms of a serious febrile illness—high irregular pyrexia, cephalalgia, pains in the neck, spine and limbs, tremors and signs suggestive of a meningitis. The cerebro-spinal fluid from a lumbar puncture was quite clear, showed slight excess of lymphocytes, but no polymorphonuclears or organisms were found. Erythema nodosum occurred

early in the illness. After a fortnight the symptoms became more localised to the abdomen, and her general state resembled that of a typhoid case. She had abdominal pain, diarrhœa, tumefaction, and some fluid in the peritoneal cavity. Widal's serum agglutination test was negative, and von Pirquet and Calmette's tests for tubercle positive. After an acute illness lasting two months she gradually recovered. She improved mentally during her illness, made marked improvement during her convalescence therefrom, and was discharged recovered on March 29th, 1912.

It may be said that there was no proof that this was a case of tuberculous peritonitis, but the exclusion of typhoid, the age of the patient, and the abdominal state, together with a tuberculin reaction in the skin and eye, the presence of enlarged glands in the neck on admission, and the probable existence of tubercular bronchial glands—as a focus for infection—would seem to point to this as the only diagnosis.

The presence of erythema nodosum which occurred early in the course of her illness is of interest. It used to be considered that this condition was rheumatic in origin, but Colcott Fox says that it is symptomatic of all sorts of toxic infective conditions of the blood, and I have met with two other cases associated with tubercle.

The next case illustrates the effect of typhoid.

CASE 3.—L. C—, female, æt. 46. Developed blood poisoning, Christmas, 1905, from a sore on the left heel. Had several abscesses opened in left leg, and was seriously ill for three months. Her health was left in a bad state, she became melancholic, and was admitted here in June, 1906. Remained in a state of depression till December. A note on December 10th is as follows: "Very despondent, agitated and restless, hearing voices telling her she is very wicked. Says she will never get better, and is worried and miserable." About December 15th illness commenced. December 30th: Typhoid diagnosed. Widal's reaction positive. The disease followed a typical course without complications. January 20th: Much brighter mentally. February 15th: Bright and cheerful, shows great mental improvement, is convalescing very favourably, and sits up a little every day. March 22nd, 1907: Discharged recovered.

CASE 4.—F. W. B—, male, æt. 25. Admitted June, 1906,

with an attack of mania. He had exacerbations and remissions but showed no improvement, and was in an acute state of excitement, when he developed in March, 1907, lobar pneumonia. On the second day of his illness he became quiet and commenced to talk sensibly, and from that time he made steady progress to recovery.

Cases 5 and 6 illustrate the effect of sulphonalism.

CASE 5.—F. H—, female, æt. 30. Admitted May 2nd, 1909. Acute mania with marked confusion and vivid hallucinations. Except for a slight temporary improvement in June she continued very violent, excited and delusional till September. Towards the end of this month she developed sulphonalism, and was very seriously ill with hæmato-porphyrinuria and other toxic symptoms. Had sickness, diarrhœa, severe abdominal pain and muscular cramps, loss of reflexes and cardiac weakness and irregularity, these last being partially due, I think, to the effect the poison has on the vasomotor system. During her illness the mental improvement was marked. Recovery from attack of sulphonalism in October. Steady mental and physical improvement continued till her discharge recovered, March, 1910.

CASE 6.—C. M—, female, æt. 28. Admitted May 20th, 1908, suffering from acute mania. History: Father insane, brother a patient here. Second attack. Previous attack two years ago; treated at home for two months. Cause of attack is of interest. On May 10th she had all her teeth extracted under ether by a dentist. Recovered from anæsthetic, but appeared strange the same evening. Gradually became worse—acutely excited four days before admission.

Well nourished; gums healed. No physical disease discovered. Urine,  $\frac{1}{10}$  albumen. This soon cleared up, but the acute state continued till October, when she developed sulphonalism after five doses of 20 grains each. Symptoms of toxic poisoning were as in the last case, and she was acutely ill. Her mental state almost at once from the outset of the physical illness changed from one of noisy excitement, obscenity and eroticism to complete clarity of thought and expression of her symptoms. She recovered from her serious state, and was discharged recovered mentally on February 26th, 1909.

This case is of interest as showing the effect of two toxic

agents on an unstable nervous system, ether undoubtedly being the direct factor in the mental breakdown, and sulphonal seemingly helping to a mental recovery.

The development of sulphonalism is always to be viewed as an unfortunate occurrence, but good sometimes develops out of evil, and the record of these two cases would seem to indicate this.

Reflecting on such cases as these one asks the question, "Was the physical illness the direct cause of the patient's recovery?" "Would they not have recovered in due course—all being recent and acute types of insanity?"

The answer I would give is: "It is quite possible that they would have so recovered, but the incidence of physical illness and mental improvement was more than a coincidence, and its onset was the 'turning-point' in the cases quoted."

It is in cases in which after months of perseverance by all ordinary methods of treatment no improvement has been obtained, and one fears that the case is becoming chronic, that one wishes to do "something" to alter the mental state.

The methods which may be legitimately tried are few.

Good results have been obtained from thyroid treatment in selected cases, and I believe that the administration of pituitary extract may prove of service.

Based on the theory that many of the insanities are toxæmic in origin, methods which are directed to the production and maintenance of a leucocytosis, and to the stimulation of substances such as opsonins, agglutinins, lysins and antitoxins, which are our natural defences against toxæmia, are sometimes of benefit. Dr. Dods Brown and Dr. Ross have described in a recent interesting paper the methods of producing a leucocytosis, *e.g.*, the giving of nucleic acid or its sodium salt—ceredin, cinnamic acid, metallic ferments, and the injection of turpentine to produce abscess formation, and these are all worthy of trial. Dr. Boyd has shown that intra-venous saline also produces a leucocytosis, and suggests its use on this ground.

Arguing from the beneficial effect occasionally seen in cases of typhoid, pneumonia, and abscess formation due to other organisms such as the staphylococci, streptococci, etc., I would, in conclusion, submit the question of the legitimacy of trying the effect of giving empirically inoculations of a vaccine, such as a streptococcal, coliform, or staphylococcal, in proper, graduated

doses, in the hope that such vaccine would lead to the production of antibodies in the blood, and so indirectly produce an "alterative action on the higher centres of the cortex, the physical basis of mind."

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*Salvarsan in General Paralysis of the Insane and Tabes.*<sup>1</sup> By M. FITZMAURICE-KELLY, M.B., B.S., F.R.C.S., Assistant Medical Superintendent, Brentford Union Infirmary.

WHEN I was invited, during my last summer holiday, to read a paper on this subject, I agreed with a light heart ; but on more mature reflection the glow of satisfaction at being so honoured has paled before the spectre of responsibility in addressing a body of experts on a subject peculiarly their own and remote from the paths of my usual work. I can only ask your indulgence, and—negative though most of the conclusions are—hope that they may suggest certain points in the treatment, and especially in the pathology of these conditions.

The cases to which I wish to call your attention are few. For the purposes of this paper I have selected from the cases of tabes only those suffering from lightning pains and visceral crises, as it appears to me possible to say something definite about this group. In the others it is plainly impossible in so short a time to say whether the progress of a disease so variable in its course is modified, for good or ill, by the administration of salvarsan. The cases of general paralysis are four in number, three treated in this institution, and another of considerable interest in my own practice.

First, a word as to technique. The method employed has been by intravenous injection of an alkaline solution of salvarsan in all cases. The apparatus used is in most respects similar to that described by Dr. Alexander Fleming, and the needle is that designed by Mr. J. E. R. McDonagh, but any apparatus, such as a simple tube and funnel, can be used. The most important points refer to the making of the solution. A capsule containing 0.6 grm. of salvarsan is dissolved in 40 or 50 c.c. of distilled water ; more distilled water is added up to 100 c.c., and then the solution is made up to 300 c.c. by the addition of

normal saline solution (0.9 *per cent.* NaCl). This gives a normal solution ; if it is made with normal saline throughout the solution is hypertonic, and, moreover, the process is slower.

To this solution, which is acid, a 15 *per cent.* solution of sodium hydrate is added drop by drop, shaking the while, until the precipitate which is formed at first just re-dissolves. The solution is then ready for use, and its reaction is strongly alkaline. In experimenting with salvarsan and using phenolphthalein as an indicator, I have found that it takes five times as much alkali to obtain re-solution as it does to reach the neutral point.

The solution, thus rendered alkaline and clear, is ready for use, and is injected into a vein. It is important that it should not be too hot—personally I usually inject it at a temperature of between 70° and 80° F.

With regard to neo-salvarsan, I may say that I have used it in ordinary syphilitic lesions. It is easier to use, forming a neutral solution in distilled water ; but the clinical results have not seemed so good, and I have gone back to the older preparation.

I shall now call your attention to a brief abstract of the cases, eight of tabes and four of general paralysis.

#### *Cases of Tabes.*

CASE 1.—A man, æt. 43 ; occupation, clerk. Severe lightning pains daily, requiring the use of sedatives. Salvarsan, grm. 0.3, June 8th, 1911. Patient remained free from pain sixteen days, then some return of pains once or twice a week. Able to sleep without sedatives, and says he feels stronger in the legs. This patient died suddenly five months later, and no *post-mortem* examination was obtainable.

CASE 2.—A man, æt. 51 ; occupation, bootmaker. Suffered from tabes four years, and, for two years, from severe and frequent gastric crises. Salvarsan, grm. 0.3, on June 8th, 1911. Temporary improvement, but recurrence in a month, the crises as frequent and severe as before.

CASE 3.—A woman, æt. 40. Suffered from tabes two years, with frequent lightning pains, requiring morphia, and gastric crises about once in two or three weeks. Salvarsan, grm. 0.4, given on June 16th, 1911. Pains less frequent and severe ;



these returned somewhat in the summer of 1912, and another dose of grm. 0.4 was given, and followed by improvement. But since the first dose in June, 1911, no gastric crisis has occurred to date (April, 1913).

CASE 4.—A woman, æt. 36; occupation, needlewoman. Suffered from tabes two years, with lightning pains. Salvarsan, grm. 0.4, given on June 16th, 1911. Great improvement followed. The patient left the infirmary three months later, and has been lost sight of.

CASE 5.—A woman, æt. 42; occupation, cook. Suffered from tabes three years, with lightning pains. Salvarsan, grm. 0.4, given on July 4th, 1911. Pains completely relieved for three months; then occasional pains at less frequent intervals.

CASE 6.—A man, æt. 43; occupation, labourer. Suffered from tabes, four years, with severe gastric crises, and lightning pains daily. Salvarsan, grm. 0.4, given on August 17th, 1911. He remained free from pains and gastric crises a month, then pains recurred at infrequent intervals. Nine months after injection he had a gastric crisis, and they have occurred occasionally since. When last seen (April, 1913), crises occurred about once in six weeks and pains about once a week.

CASE 7.—A man, æt. 51; occupation, labourer. Suffered from tabes, and frequent gastric crises. Salvarsan, grm. 0.4, on September 5th, 1911. Relief for five months, then recurrence at infrequent intervals.

CASE 8.—A man, æt. 46; occupation, bricklayer. Tabes four years, and frequent gastric crises—about once in three weeks or a month. Salvarsan, grm. 0.4, May 14th, 1912. He remained free from crises till March, 1913, when another crisis occurred, ten months after the dose.

#### *Cases of General Paralysis of the Insane.*

CASE 1.—A woman, æt. 39. Suffered from general paralysis about four years. Demented and confined to bed in end of 1909. Then a marked natural remission early in 1911. On February 6th, 1912, salvarsan, grm. 0.4, given. There is no further change to record in her condition, but the improvement is maintained.

CASE 2.—A man, æt. 30. Duration of disease, three years. Complained constantly of pain at back of head, which incapaci-

tated him for work. Salvarsan, grm. 0·4, on February 6th, 1912. Pains in head completely relieved, and patient is now working in the grounds. The physical signs are still well-marked, but there has been no advance of the disease.

CASE 3.—A man, æt 48. Duration of disease, six months. Salvarsan, grm. 0·4, given on February 6th, 1913. No improvement—the disease had advanced rapidly during the last year.

CASE 4.—A man, æt. 46, came under treatment in April, 1911, for tertiary syphilitic glossitis. Salvarsan, grm. 0·4, given on April 8th and July 8th, 1911, with great improvement of the local condition. In May, 1912, he was brought up by the police, said to have had a fit. He went out next day, but on several occasions subsequently was brought in with the same history. In July, 1912, it was recognised that he was the subject of general paralysis, and he was sent to Wandsworth Asylum on August 8th, 1912. The patient died there on April 6th, 1913, and the *post-mortem* left no doubt as to the condition.

### *Results.*

As regards the course of the disease in tabes, I may say at once that I have seen no change, either for better or for worse, that could be attributed to the drug, and only a very prolonged experience and observations extending over many years can decide whether the patient derives any permanent benefit from it, or whether the disease is accelerated.

But the cases I have brought before you seem to indicate that a definite amelioration of the symptoms does occur in the cases with lightning pains and gastric crises. In all the cases, you will have noted, temporary relief occurred, more marked, and, I think, more lasting in the gastric crises than in the lightning pains, but in both quite definite enough to make the patients crave for another dose.

The most interesting question arising out of these results, assuming for the moment that they are confirmed by the observation of others, is: What is the pathological process underlying the irritative symptoms of tabes, and what is the relation of the spirochæta to them? If relief is obtained by the use of salvarsan, it seems justifiable to assume that the process is a

chronic inflammation, syphilitic in nature, around the posterior nerve-roots, and that the relief is due to a temporary arrest of that process. But the spirochaetæ are not exterminated, only driven into their entrenchments, and at a favourable moment they emerge and direct their attack against the place already weakened by the previous assault.

Further, if the sclerosis is the result of the chronic inflammatory process, if it is related to it as a scar is related to an ulcer, it is arguable on theoretical grounds that salvarsan may do positive harm and accelerate the course of the disease. I have seen nothing in practice to warrant this, but it is an objection that has to be considered.

In general paralysis it is not likely that any good can be done. One case treated here (Case 2) does seem to have shown a definite and maintained improvement; on the other hand, Case 4, in which general paralysis with a very rapid course followed close on the cure of a syphilitic glossitis with salvarsan, shows definitely that the drug is powerless to prevent the disease, and suggests strongly that it may hasten its course.

My own feeling is that the relief given in the irritative symptoms of tabes is sufficient to justify the use of salvarsan in these cases, and that the risk of acceleration, such as it is, is not too big a price to pay for the benefit obtained. Again, in general paralysis with headache and neuralgic symptoms (as in Case 2) it seems worth while to try it; but in the absence of such symptoms I can see no indication for its use, and, in view of the risk entailed, it should not be given unless specially indicated.

(<sup>1</sup>) A paper read at the South-Eastern Divisional Meeting of the Medico-Psychological Association, held at the West Sussex County Asylum, Chichester, on April 20th, 1913.

## Recent Medico-Legal Cases.

REPORTED BY DR. MERCIER.

[The Editors request that members will oblige by sending full newspaper reports of all cases of interest as published by the local press at the time of the assizes.]

### PROBATE ACTION.

GILLETT v. ROGERS AND OTHERS.

(*Before MR. JUSTICE BARGRAVE DEANE and a Common Jury.*)

The hearing of this case, begun on the previous day, was closed. It was a probate action arising out of the testamentary dispositions of Miss Ann Holtam, late of 40, Millbrook Street, Gloucester, who died on April 26th, 1912.

The plaintiff, Frederick Gillett, propounded as executor a will dated April 25th, 1912. The defendants, twenty in number, all of whom were nieces and nephews, alleged—(1) That the will of April 25th, 1912, was not duly executed; and (2) that at the time of its alleged execution the testatrix was not of sound mind and did not know and approve of its contents, and by way of counter-claim they asked the Court to pronounce against the will and to grant letters of administration of her estate to the defendant Alfred Michael Holtam.

In the substance of their case the defendants further alleged—(1) That on April 22nd, 1912, the woman had an apoplectic fit, and remained in a comatose condition until her death on April 26th, and so was incapable of any reasoned or connected thought, and was totally incapable of speech or communication with anyone or of distinguishing the persons about her, and was therefore incapable of making a will; (2) that she neither gave instructions for the will, nor was it read over or explained to her, and that she neither read it herself, nor was she aware of its nature and effect.

Mr. Hume-Williams, K.C., and Mr. T. Bucknill appeared for the plaintiff; Mr. Bayford for the defendants.

Mr. Hume-Williams said that the testatrix had formerly been a housemaid, and had saved about £700. About April, 1904, she adopted Florence Mary Hill, æt. 11 months, a child of a nephew. On April 22nd, 1912, she had a stroke and lost all power of speech. She could, however, recognise people and indicate by signs and mumbling what she required. She was in the same state on the 23rd and 24th. It became clear that something was on her mind. Mr. Gillett, a builder, who had long known the woman, was sent for on April 25th, and arranged by a series of signs to take her assent to or dissent from what he was saying. She assented to the propositions that she wished to make a will, and that she wished to leave property to her adopted child and to her niece for the benefit of the child. The plaintiff then tried to ascertain whether the deceased could make a mark on a slate. He

wrote out her instructions, which were communicated to him by her pressing his hand a certain number of times or by not pressing in answer to his questions. The testatrix made a mark on the will, which was attested by Jesse Gillett, a brother of the plaintiff, and Sarah Annie Jeynes, a neighbour. On the same date she was removed to her sister's house, where she died on April 26th.

*The Plaintiff's Evidence.*

The plaintiff, in the course of his evidence, said that on April 25th he saw the woman. She was speechless. He asked her questions. He asked did she wish him to make a will for her. She nodded her head. He asked her questions to satisfy himself that she understood. He asked her if she could make a mark on a slate. She nodded, and she made a mark with her left hand on a slate. He asked her if she wished him to act as executor. She nodded. He then arranged with her as to the form the communications should take. Sometimes assent was to be expressed by one, two, or three pressures; dissent by an absence of pressure. Thus the will came into existence. He asked her to make a mark, not a cross. She assented by pressure, and she made "a sort of broken line" with her left hand.

Cross-examined.—He obtained the instructions between 11 a.m. and 12 noon. She nodded or shook her head as confirmatory to the pressures of the hand. The last question he asked was whether she was perfectly satisfied, and if she were would she push his hand right away. In reply, "She pushed it away to arm's length with substantial force, about 1 ft."

Mr. Jesse Gillett gave corroborative evidence.

Mrs. Jeynes gave evidence in support of the will. Mrs. Jeynes asked testatrix to press her hand if she wished her to attest the will, and the testatrix did so.

Medical evidence for the defence was now interposed by leave of the Court for the convenience of the doctors who were called.

*Medical Evidence.*

Dr. James A. Bell, M.R.C.S., L.R.C.P., said that his partner attended the testatrix on the first day of her illness. The witness himself saw her the following day, April 23rd, and on the 24th and 25th she was unconscious, paralysed down the right side, and had lost her speech. She had a large hæmorrhage on the left side of the brain, and he formed the opinion from the first that it would be fatal. There was only a slight movement of the left hand and eyes, but that did not last after April 24th. She made no sound. On April 25th there was practically no alteration in her condition. He saw her soon after 9 a.m. on that day. She was still comatose and paralysed. She was incapable of any conscious movement of the head or arm. She could do nothing consciously. In his opinion she was absolutely incapable of making a will. If she pressed anyone's hand the movement must have been involuntary or spasmodic; it could not have been a conscious movement.

By Mr. Hume-Williams: She was quite incapable of lifting her arm

or moving her eyes or head on that day. If witnesses had sworn that she did any of those things they must be mistaken.

Dr. Walter Knowsley Sibley, M.D., of Harley Street, gave evidence, but he had never himself seen the dead woman.

Evidence for the plaintiff was resumed.

Nurse Balloch, a district nurse at Gloucester, said that she attended the woman in her last illness. She seemed to understand what the witness was doing.

Cross-examined: On April 23rd the left side did not seem to be affected as the right was, and she could have moved, but in fact did not.

Mrs. Jeffs, a niece, gave evidence of conversations she had had with the dead woman before her illness as to her testamentary intentions with regard to the child, and as to the condition after her seizure on April 22nd. The witness did not agree with the evidence of Dr. Bell that her aunt was incapable of conveying her wishes to others or of making any movement. On several occasions she had signed to the witness with her left hand and signified assent by pressure of the hand, and seemed to comprehend what was said to her.

Mrs. Lucy Elizabeth Holtam, wife of Alfred Michael Holtam, one of the defendants, said that when she saw the woman on April 23rd in her opinion she could not recognise her. She made no movement except an aimless sort of "picking" with her left hand.

Further evidence was also given.

#### *The "Pack of Cards" Case.*

Mr. Bayford, in the course of his address to the jury on behalf of the defendants, said that his Lordship had referred to the case of *Moore v. Moore* (reported in *The Times* of February 13th, 1900), a case known as the "Pack of Cards case." In that case the testatrix had had a paralytic stroke, which had caused aphasia. Her solicitor hit on the ingenious idea of taking two packs of cards and writing the names of her relatives on the cards of one pack and the various properties of which her estate consisted on the cards of the other pack. He then "dealt" her a card with the name of a person, and she selected and played to it a card with an item of her estate on it, and the solicitor "gathered the trick" and put it in the will. The learned counsel went on to distinguish that case from the present one, and further cited passages from the judgment of Baron Parke in *Barry v. Butlin* (1838), 2 Moore's Privy Council, at p. 482, and from the judgment of Lord Hannen in *Burdett v. Thompson* (reported in a footnote to *Boughton v. Knight*, 3 L.R., P. and D., 64). He submitted that the will which the plaintiff sought to propound was not the will of the dead woman.

Mr. Hume-Williams addressed the jury.

Mr. Justice Bargrave Deane said that whatever were their opinions as to the justice or injustice of the will they must satisfy themselves from the evidence that the will had been made according to the wishes of the deceased.

The jury, after an absence of seventeen minutes, returned into Court and found for the will on all the issues. On those findings,

Mr. Justice Bargrave Deane pronounced for the will and reserved the question of costs.

Solicitors: Messrs. Clarke, Rawlins and Co. (for Mr. George R. Bonnor, Gloucester); Messrs. Willis and Willis (for Mr. A. Lionel Lane, Gloucester).—*The Times*, May 8th, 1913.

The verdict seems to me to be justified by the evidence as reported. The jury believed the evidence of Mr. Gillett, whose method of ascertaining the wishes of the testatrix was remarkably intelligent, and could scarcely have been bettered, except that he would have done well to have had a witness present. In the face of Mr. Gillett's positive evidence that the testatrix did give instructions for her will, the jury disregarded, and, I think, rightly disregarded, the evidence of Dr. Bell that she could not have done so. It is very difficult to be sure, in a case of the kind, that a patient is incapable of making some voluntary movement, and there is a possible reconciliation between Dr. Bell's evidence that the testatrix was comatose at 9 o'clock in the morning, and Mr. Gillett's that she had a disposing mind between 11 and 12 on the same day. It is possible that at 9 o'clock she was asleep; and anyone who has had experience of such cases knows how very much graver the apoplectic state appears to be in sleeping than in waking. One is very apt to forget that apoplectic patients require sleep, and do sleep. The hæmorrhage into the brain occurred on the 22nd, and she did not die until four days afterwards, the will being made on the third of these days. During the time that the hæmorrhage existed, therefore, she would have required some sleep, and may well have been sleeping when Dr. Bell saw her. I have been accustomed to warn students against assuming hastily that a person cannot, or will not, do a thing, when all that the evidence warrants is that he or she does not do that thing when requested; and I think that in this case, the fact that the patient did not move her head or arm may have been accepted by Dr. Bell as evidence that she could not do so.

It is very unfortunate that the small estate of the testatrix should have been dissipated by the expense of a two days' trial in the High Court, which could have been avoided altogether if Mr. Gillett had had the forethought to call Dr. Bell to witness the making of the will. If this elementary precaution were always to be taken in cases in which a question of the validity of a will is likely to be raised, the business of the Probate Division of the High Court would be almost abolished.

## Part II.—Epitome.

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### Progress of Psychiatry in 1912.

#### AMERICA.

By Dr. WILLIAM McDONALD, Jun.

IF, in this the ninth annual letter of your correspondent to the Journal, he should leave out the usual introductory plaint as to the impossibility of crowding the important psychiatric news of the year, even in shortest form, into the allotted space, the patient reader—if there be such—might welcome the change of style. Some vindication, however, is due the writer if he seems to supply a parcel of fragments rather than a true epitome.

A review of the subjects, something over a hundred in number, treated in the preceding eight years, fails to inspire confidence in one's ability to select topics of enduring interest, since a considerable number of those chosen are dead, and, save as signs of the trail, are already forgotten. And the history of 1912, even more than other years, offers a wealth and variety of items fit to fuddle the most discerning prophet who seeks, not so much what he should put on, as what he should leave off, the record.

We may take up, where we left off in last year's letter, the subject of *immigration of the foreign insane*, for it is safe to assume that scarcely anything is of greater interest or importance to America than the study and control of the defective, delinquent and degenerate classes which unremittingly pour into our ports with the stream of settlers from other countries. And to you of Great Britain and of other nations, our methods of attacking the problem are of vital concern, since our policies must unavoidably react upon you. Those of the foreign insane whom we admit are no longer a care to you, and some of those debarred by us may be on your hands. It would be well if all countries might act in sympathy in dealing with the insane wanderer, since, in the last analysis, it is the ultimate welfare of humanity, and not the temporary profit of any single nation, which should direct the minds, the hearts and hands of all.

The publicity given to the friction between Federal and New York State officials (1) respectively concerning the administration of the law regarding admission and deportation of insane foreigners has aroused wide-spread interest, and particularly has focussed attention upon the injustice of giving to New York State, simply because it happens to include the largest port of entry for the foreign insane, the heaviest part of the burden of caring for these unwelcome arrivals.

Some idea of the burden undertaken by the State of New York may be obtained from the fact that the Legislature of 1913 was asked to appropriate \$11,792,790.00 for the insane, an increase of \$3,422,418.00 over the amount required in 1912. Moreover, the United States alone has the right to deport the insane, and this only within the three-year



limit of the Federal law, and where the insanity is due to influences arising before landing. The States may only repatriate insane patients when they go voluntarily.

The insane deported by the Federal Government are returned to their homes abroad by the Steamship Company at practically no expense to the Government, while the entire expense of the return of the insane whom the State of New York repatriates is paid by the State. It would seem only fair, if the Federal Government is to control entirely the admission and return of those entering this country, that it, and not the several States, should pay for the care of the mental defectives it admits but does not send home.

Some time in December, the States most affected by the problem of the alien insane accepted an invitation to co-operate with New York State in an effort to have Congress enact legislation designed to relieve the States of the care of insane aliens admitted to this country.

The history of *pellagra* in the United States forms one of the most remarkable and instructive records of medical science.

When, in so short a period as seven years, it can happen that a disease practically unknown or unrecognised is found to be present throughout the length and breadth of the land and in single States to have thousands of victims, it becomes evident that, unless the disease has suddenly assumed an alarming and almost unprecedented aggressiveness, the medical profession is either to be congratulated upon a wonderful improvement in its diagnostic ability or condemned for its former obtuseness.

Of such uncommon or unsuspected occurrence was pellagra in 1906 that Sir William Osler (2), than whom no more reliable authority could be quoted, says, "Pellagra . . . occurs extensively in parts of Italy, in the south of France, and in Spain. *It has not been observed in the United States.*"

In 1911 the total number of pellagrins in the State of South Carolina alone was reported as about 2,100 (3).

In Rhode Island, the smallest State in the Union, 37 cases have been reported (4) as occurring at the State Hospital for the Insane (32 cases), and other State Institutions (5) during 1910-11-12, and Dr. Harrington, Superintendent of the State Hospital, and the author of the article referred to below, informs me that an additional case has been found. Every other New England State with the exception of New Hampshire (5) has reported two or three cases.

Without doubt the number of reported pellagrins is far less than the total number of victims of the disease, and in my own private practice I have seen a classical example of the disease in a girl of sixteen who had come on a visit from a neighbouring State which had reported no pellagra.

The number of pellagrins now living in the United States has been variously estimated at between 10,000 and 50,000.

Whatever may be the facts as regards the number of pellagra victims it may be seen that America is face to face with a new and unpleasant problem in public health, and since pellagra sooner or later manifests itself in mental symptoms, it becomes a fitting topic for this letter.

An occurrence of inestimable importance to psychiatry and an achieve-

ment reflecting credit upon the whole field of medicine is the not altogether unexpected, though none the less gratifying, demonstration of the *Treponema pallidum* in the brain in cases of general paralysis. Drs. Hideyo Noguchi (6) and J. W. Moore, from the laboratories of the Rockefeller Institute for Medical Research and the Central Islip State Hospital, New York, have announced that they have found the *pallidum* in twelve out of seventy parietic brains. Dr. Noguchi states that these findings were later confirmed by Dr. Moore, Dr. Flexner, Dr. Dunlap and others.

There has recently been much discussion concerning the relationship between the *size and the efficiency of hospitals for the insane*. The enormous growth of our hospitals, many of which number their patients in the thousands, whereas they were originally planned to house but a few hundred, naturally arouses the query as to what limit, if any, should be placed upon the number of patients to be cared for in any one hospital and in the charge of any one superintendent.

Dr. Channing (7) sums up his opinions as follows: "First, it appears that the history of State insane hospital development in Massachusetts shows that hospitals built for small numbers gradually increase these numbers, until they become large institutions. Second, that every dictum as to the standard of size of hospitals has of necessity been raised as numbers have augmented. Third, that at the present time we cannot determine what the maximum size of an institution should be to obtain the greatest degree of efficiency and economy. Fourth, that with a population of 2,000 patients, provided the buildings are adequate and the organisation efficient, the results will be as good as in smaller hospitals. Fifth, that psychopathic hospitals will supplement the work of the large hospitals and permit opportunities for the study, close observation and early treatment of patients."

Sir Thomas Clouston (8), on the other hand, deplores the tendency on the part of America in late years to follow the bad British example of concentrating an excessive number of patients under a single administration.

On June 23rd, 1912, *The Boston Psychopathic Hospital*, with Dr. E. E. Southard as director, was opened for the reception of patients. Up to October 1st, 1912, 301 patients had been received. The hospital contains 100 beds--50 of which are in a separate pavilion called the Reception Ward, which has a *clearing-house* function for the insane of Boston. The out-patient department has several physicians who are paid for part-time work and one who is not paid, a paid non-medical secretary, and a social worker who is making an investigation into eugenics and is not paid by the hospital.

As an indication of the effort to remove so far as possible the unwarranted stigma too generally attached by the community to sickness of mind, the *New York State Commission in Lunacy* has been renamed *State Hospital Commission*, the term "lunatic" for many evident reasons being undesirable.

*John Schrank*, who shot and seriously, though fortunately not mortally, injured *Ex-President Roosevelt* on October 14th, 1912, was committed on November 25th, 1912, to the Northern State Hospital for the Insane, near Oskosh, Wisconsin.

The medical and legal proceedings relative to the disposition of Schrank contrast favourably with many of our former celebrated murder trials. Dignity, brevity and conclusiveness tempered the application of justice from the beginning to an end against which there has been no complaint worthy of utterance.

- (1) *Journ. Ment. Sci.*, vol. lviii, No. 242, pp. 494, ff.
- (2) Osler.—*Practice of Medicine*, 6th edition, 1906, p. 384.
- (3) J. W. Babcock.—"How Long has Pellagra Existed in South Carolina?" *Amer. Journ. of Insan.*, vol. lxix.
- (4) A. H. Harrington.—"Pellagra in Rhode Island," *Boston Med. and Surg. Journ.*, vol. clxvii, No. 1.
- (5) David Edward Hoag.—"Pellagra," *Journ. Am. Med. Assoc.*, vol. lix, No. 16.
- (6) Hideyo Noguchi and J. W. Moore.—*Journ. of Exper. Med.*, vol. xvii, No. 2, 1913.
- (7) Walter Channing.—*Bost. Med. and Surg. Journ.*, vol. clxvii, No. 5, pp. 156-158.
- (8) Sir Thomas Clouston.—*Ibid.*, February 27th, 1913.

## FRANCE.

By DR. RENÉ SEMELAIGNE.

Two Bills presented to the *Chambre des Députés*, recognising insanity as a ground for divorce, have not yet been debated. According to the motion of M. Maurice Violette, detention in an asylum during three consecutive years is necessary, and the applicant must submit, with an interval of one year, three requests for the nomination of two physicians for the purpose of examining the patient and attesting incurability. The writ has to quote the three reports, and divorce cannot be granted unless the signers unanimously certify that such insane person no longer presents any prospect of recovery. The Bill of M. Maurice Colin requires also as an indispensable condition a detention of three consecutive years in an asylum and a certificate of incurability; but even subsequently to the divorce, the successful applicant remains responsible for the maintenance of the lunatic. M. Maurice Colin gives as a characteristic mark of incurable insanity the disappearance, without any possible return, of intellectual and moral personality. But he repels the plea for divorce when this condition is a consequence of senility.

Drs. Filassier and Juquellier read at different meetings, and more especially at the *Société Médico-Psychologique*, interesting papers on the same question, and Dr. Lucien Graux, director of the *Gazette Médicale de Paris*, sent to lawyers and alienists a circular soliciting their opinion on this subject. Many replies were received *pro* and *con*.

The opponents declare that an insane person, being a patient, has a right to be helped, and that such disease does not seem to offer a legitimate occasion for breaking the matrimonial bond. Divorce, according to the French law, is a penalty, and lunacy is not a fault but a misfortune. The motion would create a new and serious peril as regards the stability of marriage. Sometimes insanity is a direct consequence of matrimony (syphilis, ill-treatment, etc.), and in such a case

the offender would not be justified in claiming divorce. Opinion as to incurability is notoriously uncertain, and a positive assertion is often impossible even after many years. Some patients who seemed to be incurable may recover, in the event of which they are of course restored to liberty, in which case the previous family life is broken for ever. In giving a certificate of incurability, how great would be the responsibility of the physician? Nullity of marriage is perhaps permissible, and even equitable, in some cases of mental disorders proved to have existed previously to matrimony, and concealed at that time; but in such cases it would be unfair further to charge the applicant for relief with the maintenance of the patient; he has been deceived, and might be, moreover, injured in his personal well-being. Delusions of persecution seem to be one of the most incurable forms of insanity; nevertheless, many patients the subjects of such delusions are more or less rational, and it is often nearly impossible to persuade the public and even the magistrates that such persons are insane. In such cases the applicant might only with difficulty obtain divorce, and, in the event of his succeeding, certainly would run the risk of remaining the object of the persecution of the patient. All the controversies of peculiar interest, which are so frequently the subject of debate about the insane, are more painful than insanity itself, and the insane being the sufferers, there is no reason to aggravate their misfortune.

Partisans of divorce observe that, according to the actual law, a jealous degenerate, a brutal drunkard, an amoral or perverted disequibrated patient is invariably esteemed to be diseased, and that consequently a divorce, claimed on the ground of abuse, injury, or assault, is inevitably refused by a court of justice; but lunatics are not really ordinary patients, and their disease presents an anti-social type which must allow of being dealt with by special methods. Consequently, when insanity seems to be persistent, and warrants the presumption of incurability not allowing a renewal of cohabitation, when henceforth the sole matrimonial duty consists in the maintenance of the patient, it would be legitimate, in such a case, to dissolve an union morally intolerable to the sane party, and now non-existent and without any benefit to the patient. In other respects it does not seem equitable always to look on disease as a matrimonial risk to which sane people must submit without any warning, and be exposed to in any case, and without any limitation.

Divorce, indeed, is an evil, but an evil sometimes unavoidable, and in such a case it is not to be looked on as a penalty, but as a possible means of delivery. The rights of normal people must supersede the rights of the insane, and a civilised state ought apparently to shield any well equilibrated individual from the disequibrated one, and from the consequences of any mental defect. Eventually society must be protected against any member incapable of generating sane progeny.

Such and other reasons have been advanced on either side. Of course, neither advocates nor opponents have been convinced by any reasoning of their adversaries. The writer abstained from replying to the aforesaid inquiry and from participating in the contest. Many cases, indeed, are very painful, but it does not seem advisable to extend any further the facilities for divorce. Advocates of divorce on the ground of insanity propose to except senile dementia. Well, but M.

Maurice Violette equally excepts, and classes amongst matrimonial risks, all the cases of dementia consecutive to an attack of insanity. In such cases, according to him, the original personality does not quite disappear; as long as one agrees to be cared for by his relations and does not suffer a super-added delirium, he seems to be more comparable to an ordinary, than to an insane, patient. Why? The original personality might entirely disappear in organic dementia, and, on the contrary, persist in various other forms of insanity. M. Maurice Violette describes incurable insanity as the disappearance, without any possible recurrence, of intellectual and moral personality. But if one excepts some states of complete dementia, very few insane exhibit such disappearance, and, with such restriction, delusions of persecution or moral insanity could not constitute a legitimate ground for divorce.

Dr. Lucien Graux maintains that in such a question any exaggerated sentimentality is out of place; that in the Middle Ages leprosy was extinguished by the use of shocking methods, and that the dissolution of union of some insane would not be a very cruel action; consequently, the grant of divorce on the ground of insanity might contribute to the happiness of a great many and to the substantial benefit of our race, which it is our object to breed, cost what it may, healthy, strong and safe from any defect. I daresay that I misunderstand such a view of divorce. If new legislation succeeds in breaking the matrimonial bond of some incurable lunatics, what will be the real advantage to society? There are so many insane or disequibrated persons living at large that there remain ample opportunities for the unhindered reproduction of a degenerate posterity, in spite of any grants of divorce. In days of old, a well-known alienist pleaded for legislation prohibiting the marriage of lunatics. Such prohibition would not be more successful than divorce. If one was endeavouring to attain such an end, the best and most unique proceeding would evidently be the castration of any insane disequibrated, epileptic, alcoholic, or syphilitic person, without any exception, but I daresay there is no member of Parliament who would venture to propose so radical a motion. Consequently, lunacy will not decrease as a consequence of divorce, and the possibility of an improvement of the race does not seem to be a conclusive argument on behalf of such a law.

In such a matter the main issue requiring the consideration of legislators is evidently the painful condition of any person united to an incurable lunatic. Intimacy is no longer possible, any cohabitation is insufferable or dangerous, and nevertheless, the law maintains the permanency of a legal bond when matrimonial relations are really broken without any chance of being renewed. According to M. Maurice Colin there is no social interest which demands that anyone should be compelled to remain solitary at his desolated home. It is, indeed, proper that such considerations should be the subject of argument between lawyers and members of Parliament, but I am of opinion that the medical point of view need not be identical. However sane people so situated are to be pitied, physicians must, above all other things, consider the interests of the patients placed under their care. We have also to consider, in such a question, our own degree of responsibility. So my old friend, Dr. Klippel, physician of the hospitals of

Paris, and President for 1912 of the Société Médico-Psychologique, has recently proposed to our colleagues the following programme of discussion : (1) Care and caution to be exercised by physicians with respect to declarations of incurability, especially in the case of psychoses not organic. (2) The possibility of an action being taken against a physician in the case of controvertible prognosis. (3) Prolongation of the period of time allowed to elapse abroad before stating the great probability of the incurability of any insane person. (4) A study of the conditions of observation indispensable to any physician in order to give his opinion on incurability within a space of four or five years. If he had not an opportunity of examining the patient previously to that period, he might evidently be in difficulty with respect to some cases which, otherwise, would not leave any doubt as regards the prognosis. It might also be necessary to observe not only the present condition, but the complete evolution of the disease. (5) The most suitable demeanour for a physician to adopt towards a patient during an action for divorce. In such a case the various formalities are often a cause of anxiety and emotional disturbance highly prejudicial to a patient at a time when incurability is not yet beyond doubt. If some day or other insanity is admitted in France as a plea for divorce, let us hope that everyone will call to mind, on all occasions, the words of Pinel, "that an insane person is not a culprit deserving punishment but a patient worthy of compassion."

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#### GERMANY.

By Dr. J. BRESLER.

F. SIEMENS (Lauenburg in Pomerania), at the annual meeting of the German Society for Psychiatry at Kiel, in May, 1912, made the proposition, which received unanimous support, that the Empire might be called on to establish a biological institution for the investigation of the physical basis of mental diseases. He said that the building of expensive establishments and the discovery of new methods of accommodation cannot in the long run satisfy either physician or people. Neither was it of any value to continue the diligent grouping of mental symptoms into types according to the fancy of the alienist. There were only two kinds of symptoms in mental disease: (a) The *elementary*, caused by physical disease such as anxiety, hallucinations, emotionalism, stupor, catatonia, and delirium; (b) *symptoms of a purely mental kind, arising out of the misinterpretation of those elementary derangements by the psyche*. The study of the action of the internal secretion of glands encouraged the hope that in the investigation of mental diseases much also will be gained by this means. The individual provincial asylums were not in a position to accomplish the task of so comprehensive an inquiry, nor were the individual clinics at the universities, but the Empire must establish an institution on a large scale for this purpose.

At the same meeting Hoche (Freiburg i, Br.), in his report about the importance of the groups of symptoms in psychiatry, urged at the same time that the search for pure forms of disease is a fruitless one; he

thinks that in future mental disorders must be divided into derangements in which by toxic agencies and coarse anatomical changes in the brain new groupings of symptoms are effected, and those in which already existing abnormalities (having relation to the normal mechanisms of the brain) reveal their presence. To the latter belong mania, melancholia, and periodic insanity.

The *treatment of progressive paralysis* was also discussed at the same meeting. With the reservation that the decision as to therapeutic successes is rendered difficult by spontaneous remissions and the very uncertain course of the malady, and that none of the means recommended are able permanently to hinder the progressive advance of the disease, and its fatal termination, Meyer (Königsberg) admits the possibility of a favourable influence being exercised by treatment. The best results up to now have followed the treatment with tuberculin, which has been introduced by Wagner and by Pilcz in Vienna. The combination of an antisyphilitic with the tuberculin treatment he thinks justified.

Friedländer (Hohe-Mark) also recommends the tuberculin treatment. He contends that, if in different cases, as observed by him, in more or less direct connection with the fever produced by the tuberculin, the pupil or tendon reflexes, till then absent, or greatly diminished, return, this improvement may have been effected solely by the treatment.

Cramer (Göttingen) and others stated that the treatment of paralysis with salvarsan had not met with any success in their hands.

Fischer (*Psych.-Neur. Wochensch.*, 1913, No. 43) gives the preference to nuclein over tuberculin in the treatment of paralysis. Latterly he employs injections of a combination of mercury with nuclein.

Weygandt, at the meeting, made communications about the projected complete reorganisation of the State asylum of Hamburg. On this occasion the old theme—*the most suitable size for an asylum*—was again touched upon, and it was maintained by several speakers that the maintenance of small establishments is lower, and that they have several other advantages as contrasted with the larger. This important question has again recently been very thoroughly treated in a study, "Working Cost and Size of Asylums," by Dr. Starlinger (Mauer-Oehling) in *Psych.-Neur. Wochensch.*, November 16th, 1912, No. 33, p. 381, *vide* also p. 417. He states that there is at present absolutely no evidence forthcoming that the expenses of the large and extra large establishments (those with 1,500 insane and upwards) in similar circumstances are less on an average than those of the medium-sized and small; on the contrary, there exists a great probability that the asylums with about 1,000 beds represent an optimum as regards economy, the dogma of the cheaper management of larger establishments being unproved and improbable.

In recent months a new method of serum research has excited interest also in psychiatry; it is the method of Prof. Abderhalden, at Halle a. S., which this investigator has described in his book, *Protective Ferments of the Animal Organism; A Contribution to the Knowledge of the Defensive Agencies in the Animal Organism against Materials Foreign to the Body, Blood and Cells*, 1912, and which,

*inter alia*, is grounded on the fact that a substance which may be homogeneous to the species can be at the same time heterogeneous to the blood and organs. This method, as is known, has already proved effective in the sero-diagnosis of pregnancy. Fauser (Stuttgart) examined the serum of patients with dementia præcox by this method, and believes that he has found that in the majority of cases of dementia præcox a derangement of activity of the sexual glands is observed and in the minority a disturbance of the glandula thyroidea is noticed. These glands deliver to the blood an albuminoid substance which is not sufficiently decomposed. This substance is a heterogeneous albumen to the blood; it stimulates the leucocytes to the formation of a preventive ferment, which splits that albumen further into products which are toxic to the brain. By Abderhalden's method (dialysing method) these specific preventive ferments are detected in the blood by observing if they are able to split the albumen of the respective glands.

To those of our English colleagues who interest themselves in *new German asylums*, it may be notified that such institutions have been opened in 1912 at Bedburg, near Kleve, Rhine province, by the provincial government of the Rhine province, with accommodation for 2,200 beds, at Haar, near Munich, by the government of the district of Upper Bavaria, for more than 1,000 beds, and by the state of Lübeck at Strecknitz, near Lübeck. The description of these establishments will appear in the *International Illustrated Work on Asylums*, edited by me, which will be published in September of this year, and is a continuation of the book mentioned by me in my last epitome.

Under the title, *Advice-Office ("Beirat-Stelle"), a Method of the Care of the Insane Discharged from Asylums*, just published as No. 2, vol. ii, of *Publications of the Sanitary Administration*, edited by the Medical Department of the Prussian Home Office, Berlin, 1913; R. Schoetz; price stitched, 0.70 M., 24 pages, Prof. Dr. Moeli, Berlin, describes the origin and development of a new organisation for the after-care of discharged insane patients in Berlin. For certain cases of mental illness, such as come for treatment, especially from the population of cities and large towns, there seems a need for improvement in that part of the care for the insane which, in the form of charitable societies for discharged insane patients and for family care, has more and more extended during the last decennia. In many cases of this kind the treatment in asylums is only one of the links in the chain of care, and for many cases even an essential preparatory step to other methods of help. These are the persons with nervous systems predisposed to, or already to a mild extent the subject of, abnormal functioning. Their mental breakdown is due to the influence of external factors, and the chance of cure is not altogether unfavourable, but in their case asylum treatment need be only transitory, though not seldom obliged to be repeated. Under better conditions, if noxious influences can be prevented and the resisting force raised, they are able to maintain themselves outside. So, for instance, in the case of many "alcoholic" persons with psychopathic predispositions or degenerative tendencies, the taking of ardent spirits is often only a gross indication of an abnormal constitution. In the majority of such cases the care of drunkards is successful. The other kind of outside care, the familiar boarding-out



system for certain insane persons, has not proved a judicious form of necessary after-treatment ; these are cases with psychopathic constitution, with epileptoid fits, neurasthenics, traumatic cases, and persons with a certain degree of intelligence and social usefulness. Whereas family-care in the case of weaker patients may have more patriarchal features, it gives to the mentally active not any, or only on a restricted scale, of the necessary opportunities for *voluntary, independent activity*, such as are necessary for *getting on* in the world. Only as a temporary measure has family care any importance for some of these psychopaths.

The new institution, which is purely for the purpose of helping the more intelligent and independent among the discharged insane of the kind before-mentioned, is called "advice office." This term is meant distinctly to emphasise the intention that the patient might with greater freedom—without the supervision of a care-station—make use of the opportunities afforded him. From the commencement, therefore, he must be in some degree able to work. The advice and guidance of expert persons will then be available to remove the difficulties resulting primarily, not from his mental condition and diminished capacity, but, for the most part, from outside circumstances.

The former professional task is the most important business of the adviser. He must be able as an expert to judge the working capacity of the person who is to be discharged, and to advise him accordingly.

This advice office was founded about a year ago, as a provisional attempt only, for the *Herzberge* asylum, consequently for the insane in the whole east district of Berlin, the offices being nearly central as regards the area of reception. In these offices, twice a week in the afternoon, an hour for consultation is arranged, in which the patient may obtain medical advice, the adviser making inquiries about his case when the amount of assistance is fixed. A female assistant specially attends to the less important details. It is further assumed that the patients contribute to their maintenance, and the consciousness of having assistance, of itself, makes them abler for work. The amount of help is only gradually reduced, some wages being granted for some time longer. The bureau duties are discharged by a municipal officer. On principle, only such patients are taken notice of as have already been under medical observation ; for information as to details the original report must be read. Moeli believes that in towns of smaller dimensions and at establishments which are near towns of not too limited area, the prospects for the further development of the advice stations are still more favourable than in Berlin, and he hopes that the co-operation of non-medical persons with intelligent grasp of the nature of the work will be obtained.

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## Epitome of Current Literature.

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### 1. Physiological Psychology.

*Paramnesia in Daily Life.* (*Am. Journ. Psychol.*, Jan., 1913.) Smith, Theodore.

The term "paramnesia" is here used in the broad (and correct) sense, and not for the special phenomenon of a feeling of *déjà vu*, to which it is sometimes restricted.

Images of memory are distinguished from those of imagination by conscious reference to the past. If this reference is lost the two cannot be distinguished, whence we have a source of unconscious plagiarism. The process may be reversed, and we may thus in memory attribute our own comments on an author to the author himself. It may again be distorted, and a quotation may with obstinate conviction be attributed to the wrong author. Paramnesia may thus consist in the transference of another's experience to oneself, or *vice versa*, in adding imaginary concomitants to actual events, in dropping out necessary concomitants, in confusing mental with sensory experiences, in the recognition of objects that are really new, or in false localisation in time. Such paramnesias occur in an exaggerated form in hysteria and insanity. But in their incipient forms they are the daily experience of normal persons. "Let anyone undertake to describe some trifling event which occurred two or three weeks ago, and he will find the incipient prototypes of some of the gravest diseases of memory." Paramnesia is not in itself an abnormal mental process, since it results from the weakening and blurring which are characteristic phenomena of memory images, but it may exhibit all gradations, from the slight deviations which occur in all reproductive processes to the extreme cases in which the entire mental activity is distorted.

HAVELOCK ELLIS.

*The Causation of Homosexuality* [*Einiges zur Lehre von der Homosexualität und speziell ihrer Ätiologie*]. (*Zt. f. d. g. Neurol. u. Psychiat.*, Heft 5, 1913.) Näcke, P.

Starting with a criticism of recent papers by Fleischmann and Stier, whose conclusions on inversion he considers to be vitiated by imperfect knowledge, Näcke proceeds to consider the possible basis of this perversion. Following the indications of Bechterew, he is inclined to attach much significance to the possibility of sexual centres in man, and to place the centre for the sexual impulse in the neighbourhood of those for erection and secretion. We may, he believes, go further. If every individual has at the onset of foetal life rudimentary testes and rudimentary ovaries, may there not be corresponding rudimentary cerebral centres? Should, however, the cerebral centre of the opposite sex fail to atrophy in harmony with the atrophying sexual organs of the latent sex, as sex grows definitely determined we should have an inverted sexual desire. Näcke points out that such a theory explains all the intermediate sexual states, both physical and psychic, unilateral or bilateral. It also

renders comprehensible the pathological changes in the strength and direction of the sexual impulse which, without a central theory, can scarcely be understood. The homosexual centre would then be represented anatomically as the presence of a masculine libido-centre in women and a feminine in man. Näcke believes that the brains of inverts have not yet been investigated with sufficient care. In accepting the general existence of homosexual and heterosexual components, he admits that he is at one with the Freudians, although he regards their views as exaggerated.

Homosexuality would thus be a disturbance of correlation between two components, an unusual degree of inhibition or of hypertrophy, to be regarded not as degeneration or disease, but as an abnormality, a variation.

It will be seen that Näcke has nothing to say to the bearing on this field of recent work on the hormones, and he refers indeed to "internal secretions" with evident disdain as the mere products of fashion.

HAVELOCK ELLIS.

*Neurosis and Sexuality* [*Névroses et Sexualité*]. (*L'Encéphale*, Jan. and Feb., 1913.) Ladame, P. L.

In this lengthy report, the well-known alienist of Geneva discusses the doctrines of Freud and the Freudian school with special reference to the sexual factor in the causation of the neuroses. It is scarcely to be expected that the eminent representative of an older generation should come forward as the champion of a new school, but it is evident that Dr. Ladame has studied the matter with considerable thoroughness, and he deals considerably, and even sympathetically, with the Freudians, even though he is not usually able to follow them.

After setting forth the evolution of Freud's opinions from the time that he separated from Charcot, Ladame investigates and criticises the very extended sense which is now given by Freudians to the word "sexuality." He is unable to accept this wide use of the word, which is made to cover even the sphere of nutrition. It is desirable to respect words, and not drag them arbitrarily from their accepted meaning; moreover the word "sex," which means "separation," is peculiarly well fitted for the uses to which it has hitherto been reserved.

With regard to the sexual ætiology of the neurosis of anxiety, Ladame is by no means in agreement with Oppenheim, who discards it almost altogether, but states that his own observations confirm Löwenfeld, who finds it in the majority of cases: "Without sharing the exaggerations of the Freudian school, I am the first to recognise the services which Freud has rendered to our speciality by drawing attention to the considerable importance of sexual causes in the ætiology of the neuroses, though I cannot accept the theoretical explanation of their mechanism which he puts forward." Ladame is unable to sympathise with the tendency of the present epoch of "pan-sexuality" to attribute in the last analysis a sexual causation to dementia præcox, manic-depressive insanity, asthma, and all the functional disorders. He regards, indeed, the doctrine of the exclusively sexual origin of psychoses and neuroses as false, if not dangerous. He feels fortified in this belief by the experience of nearly half a century, and he

proceeds to inquire how it is that Freud, whose "perfect sincerity and genius for psychological observation" he fully admits, has been able to find so much sexuality in his patients. Löwenfeld believes that it is a mere chance that Freud's patients have proved to reveal this special ætiology. Aschaffenburg believes that it is auto-suggestion, and that Freud's fame creates an atmosphere in which all desired sexual anomalies easily flourish. Friedländer, again, believes that it is Vienna which is responsible, the *genius loci*, the demon of the spot, being of a highly sexual character. This is the opinion shared by Ladame, on the strength of his own knowledge of that "joyous capital" many years ago, and he refers to the fact that Weininger, with his peculiar ideas of women, came out of Vienna, and could not well have come from anywhere else. Ladame's general attitude is one of agreement with Freud so long as no attempt is made to generalise from cases which may be exceptional.

HAVELOCK ELLIS.

*Lilliputian Dreams* [*Rêves lilliputiens*]. (*Bull. Soc. Clin. Méd. Ment.*, Feb., 1913.) Fassou.

Dreams in which hallucinations of microscopic size play a chief part and "lilliputian" hallucinations in general are not very common. Leroy, in 1909, described a case of general paralysis in which a prominent part was played by these phenomena, and reviewed most of the previously recorded cases. These hallucinations seem to be almost invariably of toxic origin, occurring in alcoholics, ether drinkers and chloral takers. As a rule the figures seen in the dreams are minute, active, and often brightly coloured, and the dreams are of a pleasant nature. The patient whose case forms the subject of M. Fassou's paper was a clerk, æt. 40, who came of an alcoholic stock, and was himself addicted to drink. The dream which he had on two successive nights is described by the patient in vivid language. He thought he was in a train, and looking out of the window of the carriage he saw a multitude of little men, about the size of one's finger, dressed in gaily coloured garments, very active in their movements, playing at football in the fields through which the train passed. There were hundreds of thousands of these minute creatures, and at times they jumped on the foot-board of the train and he could hear their voices, which were louder than one would expect from their size. On waking, the hallucinations completely disappeared, only to return the next night. This time, however, he thought that some of the little men got into his compartment and annoyed him, and his resulting excitement led to his admission to the asylum. In a day or two the hallucinations disappeared, but signs of chronic alcoholism were evident—he had tremor of the tongue and fingers, pupils slightly unequal and giving the paradoxal reaction to light. He had been treated at one time for astigmatism, otherwise his sight was normal.

These microscopic hallucinations, though usually of toxic origin and transient duration, may occur in some cases of chronic delusional insanity, and persist for years (as in a case under the care of the reviewer, in which they have been the most prominent feature for the past six years).

W. STARKEY.

## 2. Neurology.

*The Motor Plate according to the Old and New Views* [*La piastra motrice secondo le vecchie e le nuove vedute*]. (*Ann. di Neurol., Anno xxx, fase. iv*) Stefaneli, A.

The author has made original investigations of the peripheral terminations of the motor nerves in the chameleon, using Ruffini's chloride-of-gold method and Cajal's reduced silver method. He also reviews the whole literature of the subject. He concludes that in the case of striated muscle the terminal nervous expansions are of three distinct kinds according as we have to deal with invertebrates or various classes of vertebrates, *viz.* the eminences or cones of Doyère in the articulates, the ramification of Kühne in the batrachians, and the motor plates in fishes, reptiles, birds and mammals. The motor plates occur in two forms, one provided with a sole or base (the motor plate properly so-called), the other without a sole, and known as the termination, or better, expansion *en grappe*, being in the form of a bunch of grapes. Muscles which perform weak but continuous movements have small motor plates with large expansion branches, whilst muscles performing rapid and energetic movements at intervals only are provided with large motor plates. The nerve-fibres are larger, too, the more lasting is the contraction to be induced in the muscular fibres, independently of the greater or less amount of energy which these develop at a given moment.

There are three chief varieties of motor plates: one occurs as an arborisation with independent branches; a second with branches which fuse to form a true network; the third with branches which mingle in one clew-like mass. In each case three sub-varieties can be recognised according as the varicosities scattered along the branches are large, medium, or very fine.

Three kinds of nuclei can be distinguished in the sole of the motor plate: fundamental nuclei derived from the sarcoplasm, nuclei of the arborisation of the sheath of Schwann, and nuclei from Henle's sheath. The first-named seem to have an important function in relation to the nervous element; the latter two seem to be rather nuclei of support, and are less constant. The ground substance of the sole has a reticulate structure and consists of a colourable portion, and another portion less colourable in immediate connection with the nervous branches. The nerve-branches have a distinctly neurofibrillar structure, more evident in the varicosities than in the very thin tracts. They give off fine ultra-expansional fibres beyond the nerve plate, also other terminal fibres before arriving at the plate, whilst some delicate fibres penetrate the plate, as a rule accompanying the medullated fibre within Henle's sheath.

In their relations with the muscle-fibres, the plates are *hypolemmal* and less intimately connected with the fibres than are the platelets *en grappe*. Whilst it has been demonstrated in the case of insects that the nerve fibrillæ come into direct relation with the contractile substance, this has not been proved in the case of vertebrates.

The branches in the arborisation very often display true anastomoses which give to the plate a reticular aspect, which is further complicated

by the fact that the non-medullated fibres arriving at the plate are likewise disposed in net-like manner, and end by joining with the branches of the principal arborisation. There is no other form of expansion in the territory of the plate, and Mosso's theory of muscular tonicity based on the two-fold innervation of the striated muscles, as evidenced by two forms of expansions, falls to the ground.

Both the motor plates proper and the platelets *en grappe* are united with one another *directly* by means of the ultra-expansional fibres, and not by means of a nervous network such as described by Apathy in the invertebrates. The plates are themselves the nodal points in the network.

The nerve-fibrils at the periphery are thus united with one another by means of the ultra-expansional fibres, or in the varicosities of the nerve-branches of the plates, or by anastomoses between the fibres. Hence there is demonstrated at the periphery the existence of a true closed circuit of nerve-fibrils analogous to that found in the lower animals.

J. H. MACDONALD.

### 3. Clinical Psychiatry.

*Some Historical Observations on Dementia Præcox* [Quelques mots d'histoire sur la Démence Præcox]. (Rev. de Psychiat. et de Psych. Experim.). Le Savoureux, H.

Dr. Savoureux assumes that mental diseases have been similar at different periods, and proceeds to trace references to dementia præcox in medical literature. Beginning with Hippocrates, he decides that different forms of the disease are included under the latter's amentia and melancholia; before Hippocrates no descriptions are unequivocal. Among the ancients, Soranus refers to patients who neglected the calls of Nature and exhibited catalepsy, whilst Aurelianus probably included the paranoidal forms when speaking of people who thought themselves emperors, orators, etc.

The credit of first attracting attention to dementia præcox, however, belongs to Willis. He pointed out that dementia sometimes supervened in young people who were previously sane. Later Nicolas Tulp and Sauvage described catatonic stereotypy and negativism respectively.

Pinel seems to have grasped the essential unity of this heterogeneous group of mental diseases, for he remarks that "idiots" formed 20 *per cent.* of admissions to asylums, and his description of an example of these corresponds to a case of dementia præcox. Benjamin Rush, of Philadelphia, at the same period described a disease akin to dementia præcox, whilst Esquirol's plates show typical examples whose description leaves no doubt of their belonging to this category.

For the recent history of dementia præcox one has to turn to German sources. Kahlbaum described catatonia and his views met with immediate acceptance; he and Heckler also differentiated hebephrenia. Then Fink showed that there were certain phenomena common to hebephrenia, catatonia and "primitive paranoia." This had the result of preventing belief in the entity of hebephrenia, though the later continued to be re-described under different names by Schüle, Magnan, Maudsley and

Clouston. Finally Pick re-named the disease dementia præcox. Daraskiewicz enlarged the conception of the latter and drew attention to symptoms not noted before.

Until 1900, paranoia included forms of alcoholic insanity, general paralysis, mania, etc., and to Kraepelin falls the credit of clearing the ideas prevalent on the subject and of establishing its limits.

In his sixth and seventh editions, Kraepelin completes the synthesis of dementia præcox, describing hebephrenic, catatonic and paranoid forms.

This historical sketch shows how long the entity of dementia præcox was missed through too great attention being paid to details, and Dr. Savoureux suggests that we may make the same mistake for the same reason to-day in our classification of mental diseases.

H. W. HILLS.

*The relation between Manic-depressive Insanity and Bodily Diseases*  
[*Über die Beziehungen des manisch depressiven Irreseins zu Körperlichen Erkrankungen*]. (*Allgem. Zeits. für Psychiat.*, April 1st, 1913.) Rosenfeld, N.

The author refers briefly to the well-known facts that intercurrent bodily diseases may arrest a phase of manic-depressive insanity, or inhibit the onset of an expected attack in persons who suffer from the condition at regular intervals, and that on the other hand, manic-depressive insanity may appear as a sequel of infectious disease at any stage during convalescence from the same.

He notes that arteriosclerosis is apt to occur early in persons (especially men) who display excessive affective fluctuations, or who suffer from definite manic-depressive insanity.

The rest of the article is mainly concerned with the discrimination of several groups of cases in which affective anomalies occur, but in which either psychic symptoms are secondary to tangible bodily disorders, or both depend upon a common cause of a physical nature, (such as perverted internal secretions), of which they are merely different expressions.

Certain features of the mental state in these cases are fairly constant and characteristic. The depression, for example, is nearly always hypochondriacal, and associated with monotonous complaints of bodily symptoms and sensations reminding one of disorders which are liable to occur in sufferers from the bodily disease in question, and which may indeed appear later in the case under observation.

Among the conditions reviewed as frequently underlying affective anomalies are arterio-sclerosis and vaso-motor neuroses, exophthalmic goitre, minor gynæcological abnormalities, the menopause, visceroptosis, and minor heart affections.

He insists on the importance of recognising the causative influence of the bodily disorders in such cases lest too much be expected of psychotherapy.

He believes that it may be ultimately possible to trace the connection between individual psychic symptoms in such cases and their pathological causes, but such correlation is at present hypothetical.

When all such cases exhibiting symptomatic affective anomalies

have been excluded, there remains a large group of cases exhibiting a syndrome which alone should properly be entitled manic-depressive insanity.

The characteristics of this are that it is a chronic constitutional anomaly marked by a tendency to periodic affective fluctuations of purely endogenous causation—probably resulting from primary alterations in the metabolism of the brain itself. The author believes that it will ultimately be possible to remove manic-depressive insanity from the category of functional psychoses.

EDWARD MAPOTHER.

*The Meiostragminic Reaction in the Blood of some of the Insane* [*La reazione meiostragminica sul sangue di alcuni malati di mente*]. (*Riv. di pat. nerv. e. ment.*, March, 1913.) Benigni, P. F.

The meiostragminic reaction, introduced into serology by Ascoli, consists in the special modifications of the superficial tension, in a mixture composed of a serum and a corresponding antigen, reacting in determined relations and under certain conditions. The value of the superficial tension is expressed by the number of drops furnished by the stalagmometer of Fraube. Benigni thought that in cretins, high-grade idiots and the goitrous in general, if the thyroid function were altered or suppressed, there should be found antibodies capable of being neutralised *in vitro* by antigens obtained with thyroid extracts. The meiostragmines may be regarded as antibodies *sui generis*, as special products of reaction, perhaps of the ferment type, occurring in the organism after the re-absorption of special lipoids or compounds of lipoids. The actual bio-chemical nature of the meiostragmines is unknown. The technique employed by Benigni in preparing the antigen (human thyroid extract) is on the lines laid down by Vignani in his *Manuale di Technica Serodiagnostics*. The results obtained by the author were rather variable and insufficient as a basis for the practical diagnosis of the existence or absence of thyroid alterations, although the reaction has given useful results in other fields.

J. H. MACDONALD.

*Blood-pressure in the Insane* [*La pressione sanguigna nei alienati di mente*]. (*Riv. Ital. di Neurol. Psichiat. ed Elettrotet.*, April, 1913.) Sagrini, E. A.

From repeated observations the writer concludes :

- (1) There is no constant relation between pulse-frequency and blood-pressure.
- (2) In all mental affections advanced age determines an increase in the blood-pressure.
- (3) In all mental affections the blood-pressure curve for the right arm runs a few millimetres higher than that for the left.
- (4) In episodic excitement and certain emotional states there is a rapid rise in the pressure without a corresponding rise in the pulse-frequency.
- (5) Meals always determine a fall in the blood-pressure.
- (6) Epileptics have a mean blood-pressure lower than normal individuals.

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duals. It is very variable, but never reaches a state of hyper-tension, not even during the period preceding or following the attack.

(7) There is no determined relation between the mental affections and the blood-pressure, although there is noticeable a tendency to increased blood-pressure in those suffering from paranoia, alcoholic insanity, and hysterical insanity, and a tendency to lowered pressure in states of depression unaccompanied by organic exhaustion.

J. H. MACDONALD.

- (1) *The Cocaine-takers of Paris* [*Les priseurs de cocaïne*]. Marcel Briand and Vinchon.
- (2) *A Case of Nasal Cocainism* [*Un cas de cocainisme nasal*]. Provost.
- (3) *Epidemic Cocainism* [*Le cocainisme collectif*]. (*Bull. Soc. Clin. Méd. Ment.*, Nov., 1912.) Beaussart.

A large part of the November number of this *Bulletin* for 1912 is taken up by these papers and the subsequent discussion on the habit of cocaine-taking and its results. This vice seems to be very common and on the increase in certain quarters of Paris. Montmartre and the Quartier Latin are the head-quarters of the habit, and most of the victims are drawn from the demimonde, dancers and players in the orchestras in night cafés, etc., in these localities.

Cases of the cocaine habit were described as long as thirty years ago by Magnan, but the vice has spread rapidly during the past two years, and now claims a large proportion of the *habités* of these districts as its victims. To-day cocaine has almost replaced morphia, ether, and other drugs as a narcotic among this class of women in Paris. It has many advantages over its competitors in the ease with which it is taken, the absence of odour, no special instrument being needed to administer it, no scars resulting on the skin, for the universal method employed is that of nasal insufflation, and all the apparatus required is a handle of a nail-file, from which the drug is introduced into the nose. The habit predisposes to the use of alcohol, and is for this reason encouraged by the proprietors of the cafés where the girls congregate, for they say, "Cocaine and drink go well together: cocaine makes them thirsty." The vice is now so common that nobody takes the trouble to disguise the fact of being a cocaine-taker, and facilities for buying the drug are widespread.

Many pharmacists in the districts affected do a large trade in the drug, charging two francs per gramme. At night it is chiefly supplied by officials in the restaurants, lavatory attendants, etc., and the price is much higher; so that the habit is an expensive one, the daily dose often costing as much as twenty francs. Many of the vendors dilute the drug with boric acid, and thus increase their profit.

The imperative desire for the drug is acquired sooner in the case of cocaine than in that of morphia or other narcotics, coming on as early as the second dose in some cases. It is not, however, so intense, and the habit is easier broken under treatment. The drug acquires a personality for its victims—they love it or abuse it, have scenes with the box containing it, pressing it to their breasts, or throwing it out of the window, cursing it, and then asking pardon of it!

Several cases exhibiting the typical form of cocaineomania were shown

and described at the meeting of the Society. In all, the disturbances of general sensation, which were detailed by Magnan in his account of the earliest cases of the habit, were present. Cutaneous anæsthesia is constant, and the resulting numbness of the extremities produces awkwardness and incoordination of movements. In some subjects a local anæsthesia of the pharynx gave rise to the feeling of a foreign body in the throat. Hallucinations and illusions are frequent and varied. Those of sight may be gigantic or microscopic, brightly coloured or grey. Those of hearing most often take the form of an evocation, definite and impressive, of something once heard. Irritability is extreme, and often leads to fierce fights, based on jealousy, among the women. Fits have not been noted, but tremor of varying degree and explosive speech are common. Intellectual enfeeblement is progressive, but a systematised delusional condition is seldom produced. In many cases the mental symptoms are largely the result of the alcohol which is taken as a supplement to the cocaine, and these cases are always the most hallucinatory.

An interesting physical effect produced in several victims of the habit was a perforation of the nasal septum. This has been noted by various observers previously in persons who insufflate cocaine, and is probably a trophic lesion, due to the vaso-constrictor action of the drug, or possibly to its direct effect on the cells of the mucous membrane. Similar ulcers have been noted as a sequel to the use of cocaine as a local anæsthetic for the conjunctiva.

As a rule the habit is soon broken off under asylum treatment, but most of the cases relapse on returning to their former mode of life; a few remain as chronic hallucinatory lunatics.

All the writers agree as to the need for more stringent regulations as to the sale of cocaine. At present it seems to be the simplest thing in the world to obtain it in any quantity required.

W. STARKEY.

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#### 4. Treatment of Insanity.

*Refusal of Food and its Treatment [Traitement de la Sitiophobie]. (Bull. de la Soc. de Med. Ment. de Belgique.)* Quentins.

Dr. Quentins distinguishes the refusal of food due to psychical and that due to physical causes. The former may be connected with the patient's delusions, or, on the other hand, no reason may be assigned for it; sometimes it is periodic. Physical causes comprise diseases of the alimentary canal, infection and general debility.

Mental treatment should be tried at first if there appears to be no contra-indication to taking food by the mouth. Often patients will eat if encouraged. As a rule care should be taken to avoid going against the grain of the delusion, but sometimes hypochondriacal patients will eat if the functional efficiency of their bowels is demonstrated to them. If this fails, Dr. Quentins recommends pinching the patient's nose and inducing him to take food from the feeding cup. He lays stress on the action of mastication in inducing the secretion of digestive juices, and therefore reserves the nasal tube for cases which still resist food. In

many cases abstention from food for physical reasons is due to patients disturbing their digestion by eating unsuitable articles, so that confinement to bed under observation is often efficient treatment. Otherwise it is a good thing to pass a nasal tube, wash out the stomach and administer a saline purge. For a few days large amounts of slightly alkaline fluids administered by the same means will keep up the general condition of the patient and flush his alimentary tract. A little sugar and alcohol may be added, and common salt is useful in inducing patients to drink for themselves.

The chief trouble is with patients for whom nasal feeding is ineffectual or dangerous. Dr. Quentins recommends the injection of artificial serum for all such cases not complicated by marked renal disease or pulmonary oedema due to cardiac trouble. This solution is boiled and filtered aseptically, and two pints a day given by subcutaneous infusion, the flow being regulated so that the process lasts half an hour. The patient must be immobilised, and the author prefers artificial fixation to the bed, as then the patient can have no hope of tiring attendants, and is, in consequence, quieter.

Details of thirteen cases are given, and the results are hopeful. Physical improvement results from the effects of the fluids taken on the circulation, and patients often begin to take their food again. Dr. Quentins ascribes this psychical effect to the elimination of toxins.

H. W. HILLS.

*The Treatment of Epilepsy by Boric Acid [Quelques considérations sur le traitement de l'épilepsie par l'acide borique]. (Bull. Soc. Clin. Méd. Ment., Feb., 1913.)* Brissot and Bourilhet.

For many years borax has been employed as a remedy in epilepsy, and in some cases its use has apparently been beneficial. In 1912, Armand Devaux suggested that its effect might be due to the acid constituent, and his idea has been put in practice by these authors. They have employed boric acid in the treatment of nine cases of the disease, and the results are sufficiently good to warrant further trial of the remedy. The dose given was 15-30 grains twice daily, well diluted with water, half an hour before the two chief meals. This dose is gradually increased until a maximum of 120 grains per day is taken: this is the limit of safe dosage. In some patients digestive troubles were set up by the larger amounts, and in others an eczematous eruption resulted, but these symptoms yielded readily to a cessation of the drug, and ordinary medical treatment. The results as regards the number of fits and the general health of the patients were excellent. In every case there was a marked and prompt reduction in the number of the seizures, the patients gained weight, and their general condition improved. In one case, of which a detailed account is given, the fits, which had averaged 268 per month, ceased entirely in four months' treatment.

The method seems worthy of extended trial in this disease.

W. STARKEY.

### 5. Sociology.

*The Estimation of Intellectual Development in Young Female Criminals*  
[*La mesure du développement intellectuel chez les jeunes délinquantes*].  
(*L'Ann. Psychol.*) Sullivan, W. C.

This paper comprises the results obtained from the application of Binet and Simon's method to some 119 female inmates of Holloway prison.

In his preliminary remarks, Dr. Sullivan identifies himself with those who deny the existence not only of a typical criminal body, but of a typical criminal mind, "except of course in the same sense as one can speak of a medical or legal mind," and points out that crime is often the expression of the sane and normal impulse of self-preservation. He adds, however, that abnormal psychological states tend to create a predisposition towards anti-social acts, and that therefore an appreciable proportion of prison populations will be found poorly equipped, intellectually and affectively, and asserts the desirability of the segregation of these from other criminals, especially in view of the modern tendency of penitentiary administration to become reclamatory rather than vindictive and repressive. The method of Binet and Simon he regards as admirably adapted for such an estimation of the mental weakness as is therefore needed.

The cases considered have been girls from 16 to 25 years old in whom there has been some reason for suspecting mental enfeeblement, and they have been divided into six classes as follows:

(1) *Non-criminals* (those adjudged not guilty, or guilty only of minor offences, and cases of concealment of birth).—These furnished striking differences of intellectual level ranging from that of a child of  $5\frac{1}{2}$  years to that of a child of 15, the latter being the highest level tested for. This group supplied a case of lower level than any, but owing to exceptionally favourable environment the girl earned her living by honest manual labour. The average was that of a child, of 11.5 years.

(2) *Prostitutes*.—These were most often of an intellectual level of 10 or 12 years. One only reached that of 15, and the least intelligent did not quite get up to 8.

(3) *Habitual criminals* (offenders who have undergone several sentences for crimes with a view to profit).—Dr. Sullivan prefers the word "habitual" to "professional" in this connection, considering that the latter would convey too much, and suggest a degree of facility in the rôle which all habitual offenders do not possess.

Much diversity of intelligence was found in this class. In 11 cases it worked out between the levels of 10 and 12 years, in 6 cases between those of 12 and 15, while 5 passed the tests above 15 years of age including in three cases that of *decoupage*. The last named were all professional criminals who had attained to some distinction in their business.

(4) *Occasional criminals* (those who have undergone only one or two sentences).—The intention here was to form a group whose crimes were due to a passing weakness rather than to the commencement of a life of crime, but as their average age was lower than in the preceding group, the explanation of their lesser criminal records may be in some cases

simply their youth. Here the intellectual development shows still more diversity, ranging from the levels of 9 to 15 years.

(5) *Impulsives* (those whose crimes disclosed no interested motives, and whose temperament was stigmatised by an excessive instability manifesting itself especially in feeble inhibitory powers).—The majority of these were in prison for suicidal attempts, and in most cases approximated to the non-criminal class in their histories and habits. Apart from the acts dependent on their morbid impulsiveness they showed no anti-social tendencies. In this group, more than half reached a level above twelve years, although one was clearly feeble-minded.

(6) *Moral imbeciles* (those exhibiting anti-social tendencies in various ways from infancy).—These are marked out by their excitable and intractable temperament, are thieves and liars, wilfully cruel, lacking in natural affection, and show at an early age morbid propensities to sexual vice. Their criminal acts are distinguished by a characteristic cynicism, and by malicious monkey-like tricks. In contra-distinction to the other classes, their exaggerated variety made them refractory to examination in two cases. Out of six others four showed an intellectual level above twelve years.

In his summary, Dr. Sullivan goes on to a criticism of some of the tests, but regards the method on the whole of much practical value, as fixing the diagnosis and giving it an objective base, the latter being especially desirable when advice has to be justified before people unacquainted with psychiatry. The examination corrects too favourable impressions on the one hand, and on the other prevents what simply depends on playing truant from school being put under the heading of mental weakness. The author concludes by pointing out that his deductions indicate that the rôle of mental debility, in the intellectual sphere at least, has not all the importance sometimes attributed to it in the genesis of crime, and that the pathological mental element is more likely to be found on the affective side.

NAPIER PEARN.

*Forms of Mental Defect.* (Published by the Medical Officers of Schools Association. London: J. & A. Churchill, 1913.) Langmead, F.

This is a report of a paper read and discussed at a meeting of the Medical Officers of Schools Association last November.

Dr. Langmead, after some general remarks on the difficulties of classifying amentia at the present stage of our knowledge of the subject, suggests as a provisional scheme a division under the following heads:

(1) Primary amentia:

Genetous (or simple).  
Microcephalic.  
Mongolism.

Epileptic?

(2) Secondary amentia:

Traumatic, vascular, toxic, infective (paralytic).  
Sclerotic.  
Atrophic.  
Macrocephalic.  
Nodular or tuberous.

Hydrocephalic.

Syphilitic.

Amaurotic family idiocy (infantile cerebral degeneration).

Ductless gland defect.

Thyroid (cretinism).

Supra-renal, genital, pituitary, pineal.

Sense deprivation.

Mentally defective children (feeble-minded children).

Morally defective children.

Idiots savants.

Fully 90 *per cent.* of cases of amentia fall into the primary class, and of these cases the large majority belong to the simple or genetous group, and do not admit of being classified according to pathology, ætiology, or external appearances. The author suggests, however, that the data furnished by the Wassermann test may enable us to arrive at a differentiation of the group of primary aments in which syphilis is a causative factor, and refers to the recent investigations of Sioner and Keiser, Lippmann, Dean and others in this direction. Secondary amentia due to syphilis ordinarily takes the clinical form of juvenile general paralysis. With regard to the relation of epilepsy to amentia, Dr. Langmead expresses some scepticism as to the reality of the causal influence so often attributed to fits in defectives with convulsive symptoms, and suggests that the term "epileptic amentia," if retained at all, should be reserved for the cases where no mental defect is noticed until the fits begin, and where the fits are functional only and unassociated with obvious organic changes.

In the discussion which followed the reading of the paper, Dr. Kerr emphasised the urgent need of a practical method of grading and classifying defectives in the schools. Several speakers referred to the significance of nocturnal enuresis in relation to mental debility, the predominant view being that incontinence, though frequently indicative of some degree of nervous instability, is not ordinarily to be regarded as suggestive of mental deficiency.

W. C. SULLIVAN.

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### Part III.—Notes and News.

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#### THE MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

THE QUARTERLY MEETING was held at No. 11, Chandos Street, Cavendish Square, London, on Tuesday, May 27th, 1913, Dr. J. G. Soutar, President, in the chair.

There were present: Drs. F. Beach, D. Bower, St. J. Bullen, R. B. Campbell, J. Chambers, G. Clarke, R. H. Cole, M. A. Collins, M. Craig, A. C. Dove, T. Drapes, J. H. Earls, H. E. Haynes, F. P. Hughes, D. Hunter, T. B. Hyslop, G. R. Jeffrey, G. Johnston, E. M. Johnstone, W. S. Kay, A. C. King-Turner, R. K. Leeper, H. W. Lewis, H. J. Mackenzie, E. D. Macnamara, K. D. C. McRae, W. F. Menzies, C. Mercier, J. Middlemass, A. Miller, R. C. Monnington, W. F. Nelis, H. H. Newington, H. J. Norman, L. R. Oswald, E. S. Pasmore, R. A. G. Penny, J. G. P. Phillips, B. Pierce, J. J. Scanlan, J. Scott, J. N. Sergeant, J. J. M. Shaw, G. E. Shuttleworth,

R. Percy Smith, J. G. Soutar, R. H. Steen, R. C. Stewart, E. W. D. Swift, F. R. P. Taylor, T. Seymour Take, F. Watson.

Visitors: E. W. Fairfax (Sydney), E. A. B. James.

The minutes of the last meeting, having been already printed and circulated in the Journal, were taken as read and were duly confirmed.

#### OBITUARY.

The PRESIDENT remarked that before commencing the regular work of the afternoon, it was his duty, once again, to mention the name of a member who had died since the Association last met—Dr. Tate, of The Coppice, Nottingham, who died at the age of eighty-seven, and who had been, for nearly fifty-five years, superintendent of "The Coppice"—surely an unparalleled record of service. He became a member of the Association in 1857, and therefore was one of the oldest, if not the oldest, member. Those of the members who knew Dr. Tate were aware that he possessed, in an extraordinary degree, that kind and sympathetic nature which enabled him to be not only the physician, but also the friend of his patients, thus doubling his usefulness to them and his happiness in his work. For many years it had not been possible for Dr. Tate to be present at the meetings of the Association, but in the earlier years of the Association he attended the meetings and took part in the discussions and made some contributions to the Journal. Over the closing of such a life, one so full of service, we could not really mourn, but it was meet for the Association to send an expression of sympathy to his daughter, who herself had become a widow only recently, in the loss she had sustained by the death of a devoted father.

The resolution was carried in silence, by members standing in their places.

Dr. HAYES NEWINGTON said that at the last meeting of the Association, held at Darenth Asylum, he had referred to the illness of Dr. Mercier, and was requested to convey a message of sympathy to him. He was now glad to have the opportunity of welcoming Dr. Mercier back again.

Dr. MERCIER warmly thanked Dr. Newington and the whole of those at the meeting for the cordiality of their welcome, as well as for the kind sympathy extended to him in the kindly message brought by Dr. Newington when he, Dr. Mercier, was ill.

#### MATTERS ARISING OUT OF THE COUNCIL MEETING.

The PRESIDENT called attention to the fact that four matters arose out of the Council meeting. The first of these concerned the date of the Association's annual meeting. According to the bye-laws, it was necessary that the Council should prepare a report upon the general state and proceeding of the Association each year, and submit it to the annual meeting (reads Bye-Law 74). The meeting of the Council at which the report of the Nomination Committee had been received had been held only that morning, and as it is suggested that the annual meeting should be held on July 16th and 17th, the time required by the bye-laws would not elapse between the Council meeting held that day and the annual meeting. He was afraid this bye-law had been broken several times in the past, but the Council thought it advisable to obtain the approval of the meeting to what they considered was, on this occasion, a very necessary change of date, namely, to hold the annual meeting on July 16th and 17th. The reason was that there was to be a meeting of the British Medical Association in the week following July 17th, and in the week beginning August 3rd the International Congress of Medicine would meet in London. Thus by holding the annual meeting of this Association in the usual week, it would be sandwiched in between two other important meetings which a good many members were sure to wish to attend. On the other hand it had been asked why the May quarterly meeting could not have been held a little earlier in the month. The reason was that there was now much more work done by the Association than when the bye-law was passed; for example, the examination of nurses which had been going on had made it impossible to fix the May meeting for an earlier date. The Council hoped that the meeting would agree to the earlier date for the annual meeting this year.

Agreed.

Dr. MERCIER said he approved of the action in this case, but if such bye-law was constantly being infringed, he suggested it would be wise to repeal it, or at least so modify it that there would be no need to contravene it in the future.

The PRESIDENT pointed out that the Council had anticipated the excellent advice of Dr. Mercier, and had decided to ask for such alteration of the bye-law as might be necessary to meet the present requirements of the Association.

The other matter which came up from the Council was that concerning criminal lunatics. He asked Dr. Collins, General Secretary, to read it.

Dr. COLLINS read as follows :

#### REPORT *re* CRIMINAL LUNATICS.

"On February 20th you appointed a committee consisting of Drs. Menzies, Powell, Spence, Stansfield, and Wolseley Lewis, with instructions to make representations to the Home Secretary expressing the opinion of the Association that it was most undesirable that criminal lunatics should be sent to county and borough asylums.

"As a preliminary step, your committee circularised the medical superintendents of the county and borough asylums asking them for their personal opinions on the subject, and also for details of their experiences in the matter. In answer to this circular, there was overwhelming evidence that the superintendents considered criminal lunatics most undesirable inmates for their asylums, and that in many cases they had actually proved themselves to be so. It was further abundantly shown that this was a grievance which had been sorely felt, and that an alteration in the existing condition of things would be widely welcomed.

"A letter was then drawn up epitomising, as far as possible, the opinions expressed in answer to the circular, and this was forwarded to the Home Secretary on May 5th. This was duly acknowledged, and a letter asking for further particulars was received on May 10th. No further communication has been as yet received.

"A copy of the letter to the Home Secretary was also forwarded to the Lunacy Commission, who replied that they were in full sympathy with the views of the Medico-Psychological Association on the subject."

Dr. MERCIER asked whether the letter to the Home Secretary, which was referred to, had been replied to.

Dr. HAYES NEWINGTON said this resolution had been read in consequence of the matter having been debated at the meeting at Darenth Asylum. He now moved that it be accepted, that the Committee be thanked for their report, and for their expression of opinion, and that the Association do cordially endorse the action of the Committee, as far as it had gone, so that the Committee should feel that it had the support of the general body of the Association behind it. It was pleasing to reflect that the name of the Medico-Psychological Association had now more weight than it at one time appeared to possess in such matters.

Dr. BOWER seconded, and said he would be interested to hear whether there had been the same experience at other asylums as had happened at the Three Counties' Asylum. From that institution the Government had either removed all their criminal lunatics, or this would be accomplished within a week.

The PRESIDENT pointed out that the object of Dr. Hayes Newington's resolution was really to enable that Committee to go forward.

Dr. MERCIER said he would like to suggest that in such communications of an official character, the communication should be rather one from the whole Association than from any Committee, and so communications with the Home Secretary should pass through the medium of the President and the General Secretary.

Dr. NEWINGTON pointed out that what Dr. Mercier spoke of was not intended. It was a report submitted to the whole Association, to receive its support. It was an effort to back up the work of the Committee.

The PRESIDENT pointed out that part of the instruction of the general meeting was that the Committee should communicate with the Home Secretary; this was carrying out the instructions given by the meeting at Darenth.

Dr. MERCIER said his point was that it was not likely to carry so much weight at



headquarters if it were sent by a Committee as it would if it were from the whole Association, through the President and the General Secretary.

The resolution was put, and was carried.

#### THE DESIRE TO INCLUDE IRELAND IN THE MENTAL DEFICIENCY BILL.

The PRESIDENT said the other matter which came up from the Council was the re-affirmation by this meeting of the decision of the annual meeting held at Gloucester last year, as to the desirability of having a clause in the Mental Deficiency Bill to include Ireland in its provisions. There could be little doubt that Ireland required the benefits which it was sought to confer by this Bill more than did any other part of the United Kingdom. The resolution of the Council was that a letter should be written by the General Secretary of the Association to the Chief Secretary for Ireland, and another to the Home Secretary, forthwith. At the Gloucester meeting it was affirmed that the Association supported the desire of the Irish Division that Ireland should be included in the Mental Deficiency Bill. The Bill, however, had been produced, and there was no mention in it of Ireland. He believed the Bill would be up in Parliament for discussion on the following day, for the second reading; and it had been suggested that again, even at this eleventh hour, there should be another attempt made to have Ireland included.

Dr. MERCIER asked whether Scotland was included in the Bill.

The PRESIDENT replied that Scotland had a separate Bill of its own. He now proposed that the Association do re-affirm its decision given at the last annual meeting, to endeavour to get Ireland included in the provisions of the Bill.

Dr. LEEPER seconded. It was, he said, scarcely necessary for him to speak in support of the motion. Members would have read the report of the Commission on the Care and Control of the Feeble-minded, which emphatically stated that Ireland needed provision for the care of imbeciles more than did any other part of the Kingdom, because Ireland was not fortunate enough to have the legislation which this country possessed; there was no such provision for the imbecile population as had been made in England. It was very hard that a country which needed such a measure most should have been left out of it entirely.

Agreed.

#### THE POSITION OF IRISH ASYLUM OFFICIALS UNDER A HOME RULE BILL.

The PRESIDENT said there was another matter concerning their Irish brethren which came from the Council, and upon that perhaps Dr. Drapes would speak. The Council brought forward for the general meeting the following: To ascertain from the Chief Secretary for Ireland whether, in the event of a Home Rule Bill being finally passed, the Irish Parliament should have the power to alter the position of the existing asylum officials with respect to their pension under the Act of 1909.

Dr. DRAPES remarked that there was not very much to say, as the resolution spoke for itself. There was a good deal of apprehension amongst officials, and especially among the more senior of them, in Irish asylums, lest permission should be given to the proposed new Irish Parliament to alter the position of such officials in connection with the Pension Bill of 1909. He believed the majority of Irish asylum officials were now under that Act; some, however, had contracted out. It was in reference to those remaining under the Act that it was desirable to obtain the information. To many it would make a good deal of difference as to the time of retiring. However, a number of the senior men did not wish to retire at an age when they felt there was still a fair amount of work left in them. The resolution seemed quite clear, and it would be another "injustice to Ireland" if it were not passed by the Association.

Agreed.

#### ELECTION OF CANDIDATES.

The PRESIDENT nominated Dr. Steen and Dr. D. Macrae as scrutineers for the ballot of the following gentlemen, who were declared to have been unanimously elected:

Black, Robert Sinclair, M.D.Aberd., M.A.Edin., D.P.H., Senior Assistant

Medical Officer, Valkenberg Asylum, near Cape Town, South Africa. (Proposed by Drs. T. Duncan Greenlees, Norcliffe Roberts and M. A. Collins.)

Connell, Oliver George, L.R.C.P. & S.I., L.M. (Rot. Hosp.), Senior Assistant Medical Officer, County Asylum, Shrewsbury. (Proposed by Drs. Daniel F. Rambaut, T. Stewart Adair and Richard Kelly.)

Cox, Major W. H., Indian Medical Service, M.P. Certificate, and Superintendent Burma Asylum, Burma Asylum, P.O. Box 235, Rangoon, Burma. (Proposed by Drs. Robert Jones, John R. Lord and M. A. Collins.)

Fothergill, Claude Francis, B.A.Cantab., M.B., M.C., M.R.C.S. and L.R.C.P. Lond., Hensol, Chorley Wood, Herts. (Proposed by Drs. H. Hayes Newington, Norcliffe Roberts and M. A. Collins.)

Gordon, Robert Montgomery, L.R.C.P. & S.I., Assistant Medical Officer, County Asylum, Shrewsbury. (Proposed by Drs. D. Rambaut, T. Stewart Adair and Richard Kelly.)

Milner, Ernest Arthur, M.B., C.M.Edin, Assistant Medical Officer, Royal Albert Institution, Lancaster. (Proposed by Drs. Archibald R. Douglas, W. H. Coupland and T. P. Cowen.)

Potts, William A., M.A.Camb., M.D.Edin., M.R.C.S., M.D.Birm., late Resident Medical Officer, Yorkshire East Riding Asylum, now Consulting Medical Officer to the National Association for the Feeble-minded, 118, Hagley Road, Birmingham. (Proposed by Drs. G. E. Shuttleworth, Norcliffe Roberts and M. A. Collins.)

Somerville, Henry, B.Sc., M.R.C.S., L.R.C.P.Lond., Harrold, Sharnbrook, Bedfordshire. (Proposed by Dr. W. H. B. Stoddart, N. Roberts and M. A. Collins.)

"The Spread of Infection by the Ascending Lymph-stream of Nerves (Ascending Neuritis) from the Peripheral Inflammatory Foci to the Central Nervous System, with Clinical Cases," by Dr. DAVID ORR, Dr. R. G. Rows, and Dr. STEPHENSON (see p. 411). Dr. Rows read this paper and gave a lantern demonstration.

The PRESIDENT remarked that he had received a message from Dr. Orr expressing his regret that he could not be present on this occasion. He was sure all would be sorry that he was not there to share the expression of the very high appreciation of members of the excellent paper which those two gentlemen had produced. From Dr. Rows and Dr. Orr the Society had had a paper of just the type and quality which a pleasant experience had led one to expect from them. They belonged to that select and necessarily small band of workers who, by directing observation and experiment into the matters underlying disease processes, were establishing for their colleagues in the profession reasons upon which to base a rational treatment of many of the diseases which at present baffled them. That was a great work. That such work was being done by men in their own body established the contention which he had previously made that in this country there was being carried out scientific investigation which compared favourably with that in any other country. That it could ever be very extensively carried out was not possible, for it required that special aptitude and education which the present authors possessed to establish confidence in the results obtained. He formally expressed to the authors the thanks of the members for the work they had done and were still doing.

#### MEDICO-PSYCHOLOGICAL ASSOCIATION.

##### SOUTH-EASTERN DIVISION.

THE SPRING MEETING of the South-Eastern Division was held, by the courtesy of Dr. H. A. Kidd, at the West Sussex Mental Hospital, Chichester, on Tuesday, April 29th, 1913.

Among those present were—Drs. H. K. Abbott, J. L. Baskin, P. E. Campbell, M. A. Collins, H. Corner, F. C. Gayton, J. D. Greenlees, H. E. Haynes, H. A. Kidd, J. Macarthur, B. H. Mumby, A. S. Newington, G. E. Peachell, E. F. Sall, R. H. Steen, R. J. Stilwell, F. A. K. Stuart, W. Rees Thomas, and David Hunter (Hon. Secretary).

The visitors included the Rev. F. J. Birkett, Lieut.-Col. G. Coutts, R.A.M.C., Drs. A. H. Bostock, G. C. Garratt, M. Fitzmaurice Kelly and F. Skaife, and Messrs. J. R. Newman, G. F. Ford and D. C. von der Sall.

Letters regretting inability to be present were received from Drs. Soutar (President), Percy Baily, Mercier, Bower, Thomson, Cole, Kerr, Robert Jones, Donaldson, De Steiger, Boycott, F. R. P. Taylor, Gardiner Hill and Fitzgerald.

In the morning the members visited the wards, grounds, farm, and other parts of the Institution. At one o'clock the members were entertained to luncheon. At the end of lunch Dr. J. D. Greenlees proposed a vote of thanks to Dr. Kidd for so hospitably receiving the Division. Dr. Kidd responded.

The meeting of the Divisional Committee was held at 2 p.m.

The General Meeting was held at 2.30 p.m., Dr. H. A. Kidd in the Chair.

The minutes of the last meeting, having been printed in the Journal, were taken as read and confirmed.

The following members were elected to take office for 1913-14:

Hon. Secretary of the Division, Dr. David Hunter. Representative members of the Division on the Council, Drs. Edwyn H. Beresford, John Brander, Robert H. Steen, and T. Seymour Tuke.

The following gentlemen were elected Ordinary Members of the Association:

E. Percy Court, M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer, Essex County Asylum, Brentwood; Arthur P. Draper, B.A., M.B., B.Ch., B.A.O., L.M. Dubl., Assistant Medical Officer, Kent County Asylum, Maidstone; James Noël Greene Nolan, M.B., B.Ch., B.A.O., A.B. (T.C.D.), Assistant Medical Officer, East Sussex County Asylum, Hellingly; and Robert Augustus Greenwood Penny, M.R.C.S., L.R.C.P.Lond., The Asylum, Witham, Essex.

Drs. H. A. Kidd, David Bower and G. Clarke were elected members of the South-Eastern Divisional Committee of Management, which now consists of the following:

Retire in 1914: Drs. Stansfield, Dove and Phillips.

Retire in 1915: Drs. Kerr, Johnston and Harper Smith.

Retire in 1916: Drs. Kidd, Bower and Clarke.

The invitation of Dr. M. A. Collins to hold the Autumn Meeting of the Division at Ewell Colony, Epsom, was unanimously accepted with much pleasure. October 7th, 1913, was fixed as the date of this meeting. The date of the Spring Meeting, 1914, was fixed for April 30th.

#### CONTRIBUTIONS.

Dr. G. E. PEACHELL read a paper entitled "The Influence of Physical Illness on the Mental State in Insanity" (see p. 492).

Dr. Kidd congratulated Dr. Peachell on his interesting, thoughtful and suggestive paper. He thought that it called up visions of investigations which could not be satisfactorily undertaken with our present staffs, and was a good argument for State aid. He was particularly interested in sulphonalism, and had been struck by the great improvement seen in patients who had toxic symptoms from sulphonal and had subsequently recovered. In conclusion, he mentioned that the West Sussex Committee had recently granted two months' "duty leave" to Dr. Peachell in order to take a course of study at St. Mary's Hospital.

Dr. STEEN thought that many patients improved from being accidentally subjected to sudden shocks. He gave an instance of a case who recovered while being brought across London to the asylum, and who had a severe fright on the way.

Dr. BASKIN, Dr. SALL and Dr. COLLINS also discussed the paper, and Dr. PEACHELL replied.

Dr. M. FITZMAURICE KELLY then read a paper entitled "Salvarsan and Cases of General Paralysis" (see p. 498).

After the discussion had been opened by Dr. KIDD,

Dr. GREENLEES said he had been very much interested in Dr. Kelly's results, especially as he recently had a case where a man, who developed general paralysis after old-standing syphilis, was sent to a surgeon attached to the Dreadnought Hospital for "606" treatment. He, however, gave his opinion that the cerebral arteries were affected, and that in such cases "606" was contra-indicated.

Dr. KELLY, in his reply, agreed that harm may be done in some cases, but thought it was justifiable to give "606" to relieve distressing symptoms. Undoubtedly the drug often caused no improvement, and, indeed, seemed to hasten the course of the disease.

After Dr. Kelly's paper a series of excellent biograph films were shown on the screen illustrating the spirochæte of syphilis, the action of "606" on the spirochæte, and the churning movements of the stomach.

After the meeting Mrs. Kidd kindly entertained the members to tea in the Medical Superintendent's garden.

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### SOUTH-WESTERN DIVISION.

THE SPRING MEETING was held, by the kind invitation of Dr. Smyth, at the County Asylum, Wotton, Gloucester, on Friday, April 18th, 1913.

Dr. Soutar was in the chair and the following members were present: Drs. Aveline, Braine-Hartnell, Rd. Eager, Fenton, Kough, Lavers, Marnan, MacBryan, Nelis, Phillips, R. B. Smyth, Thomas and Townsend. The Hon. Divisional Secretary was prevented from attending through ill-health.

The minutes of the last meeting were read and signed.

Dr. Blachford was re-appointed Hon. Divisional Secretary, and Drs. Aveline and Nelis Representative Members of Council.

Drs. Braine-Hartnell and Rd. Eager were elected Members of the Management Committee.

The following were elected Members of the Association :

Benjamin Arthur Molyneux, M.B., B.Ch.Dublin, Assistant Medical Officer, Second County Asylum, Gloucester. (Proposed by Drs. Smyth, Marnan and Kough.)

Charles Stanford Read, M.B.Lond., M.R.C.S., L.R.C.P., Assistant Medical Officer, Fisherton House, Salisbury. (Proposed by Drs. Hart, Finch and Blachford.)

Thomas Cyril Smith, M.B., B.Ch.Edin., Assistant Medical Officer, County Asylum, Gloucester. (Proposed by Drs. Smyth, Marnan and Kough.)

Francis Joseph Wisely, B.A.Dub., M.B., B.Ch., B.A.O.Belfast, Assistant Medical Officer, County and City Asylum, Powick, Worcester. (Proposed by Drs. Braine-Hartnell, Fenton, and Blachford.)

The date and place of meeting for the autumn and spring were deferred and left to the Chairman and Divisional Secretary to arrange.

Dr. A. A. TOWNSEND contributed a paper, "Notes on a Case of Adolescent Insanity," and this gave rise to an interesting discussion in which Drs. SOUTAR, LAVERS, MARNAN and PHILLIPS took part.

The meeting closed with a vote of thanks to Dr. Smyth for the hospitable manner in which he had received and entertained the members.

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### NORTHERN AND MIDLAND DIVISION.

THE SPRING MEETING of the Northern and Midland Division was held, at the kind invitation of Dr. Cassidy, at the County Asylum, Lancaster, on Thursday, April 24th, 1913. The President, Dr. J. G. Soutar, presided.

The following fifteen members were present: Drs. D. Blair, D. M. Cassidy, W. H. Coupland, J. P. Cowen, A. R. Douglas, W. F. Farquharson, H. McCalman, G. E. Mould, R. G. Rows, R. P. Sephton, J. G. Soutar (President), C. T. Street, G. A. Watson, W. D. Wilkins, T. S. Adair; and two visitors—Dr. J. I. Langley and Mr. Neville Holden.

Apologies were received from Drs. Dixon, Middlemass, Rambaut and others.

The minutes of the last meeting were read and confirmed.

A ballot was taken for Joseph Stanley Hopwood, M.B., B.S.Lond., M.R.C.S., L.R.C.P., Assistant Medical Officer, County Asylum, Winwick. Recommended

by Drs. A. Simpson, F. M. Rodgers and W. Boyd, as an ordinary member of the Association, and he was unanimously elected.

Dr. T. Stewart Adair was re-elected Secretary to the Division.

Drs. A. R. Douglas and H. Devine were elected Representative Members of Council for the ensuing twelve months.

Dr. C. T. Street was unanimously appointed to fill the vacancy on the Divisional Committee caused by the retirement of Dr. Hitchcock.

The kind invitations of Dr. Dixon to hold the Autumn meeting at the Leicester Borough Asylum on Oct. 23rd, 1913, and of Dr. Edgerley to hold the Spring meeting, 1914, at the West Riding Asylum, Menston, on April 30th, 1914, were cordially accepted.

Dr. Cassidy gave a very interesting account of the early history of the Lancaster County Asylum. Approaching completion in 1815 for about 150 patients, in 1824 the number had risen to 250, and in 1913 to 2,450. He described various methods of treatment which were in vogue in the early days of the Asylum, such as the warm room and the whirling chair, and the means of restraining patients by fastening them to the wall, etc. A humorous reference was made to the way in which all the windows in the wards were kept carefully shut, and how an attendant was reported if he left one open.

Some interesting points were mentioned in connection with the early history of the medical staff of the asylum.

An original copy of the rules for the management of the asylum published in 1815 was handed round.

The interest of the paper was much enhanced by a display of a large number of instruments of restraint used in the asylum prior to 1840.

Dr. DOUGLAS read a paper entitled "Some Suggestions respecting the Care of the Feeble-Minded under the Mental Deficiency Bill, 1913" (see p. 487). He defined the different classes of persons who are deemed to be defective within the meaning of the Act, distinguishing between idiots, imbeciles, feeble-minded and moral imbeciles. He then mentioned how these cases had been dealt with up to the present time. He considered that it was by careful classification alone that we could hope to obtain any tangible result from education and training. He thought that a combination of counties forming associated areas should be able to deal with the matter, aided by those institutions already in existence. Each of these voluntary institutions might be used as a centre or filtering ground, through which all defectives in the area would pass before being drafted to the other homes or colonies.

Dr. SOUTAR, Dr. CASSIDY and others spoke on the subject.

Dr. BLAIR showed an exceptional case of catalepsy. The patient, a female, was one of three sisters, all of whom had been treated at Lancaster Asylum. She was there first from the beginning of 1906 to the end of 1908. She was admitted again in January, 1910, and for the past three years had been insensible. She gave no response or very slightly at times to stimuli, and had to be forcibly fed. At present she showed slight indications of returning sensibility.

Remarks were made by various members, and the question was suggested, What is the meaning of these cases? Is this a case of auto-hypnotism due to the domination of frightful hallucinations?

After the meeting Dr. Rows gave a short demonstration of interesting objects and processes in the Pathological Laboratory of the asylum.

A hearty vote of thanks was accorded Dr. Cassidy and the staff of the asylum for the trouble they had taken in making the visit so thoroughly instructive and enjoyable.

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#### IRISH DIVISION.

THE SPRING MEETING was held at Portrane Asylum on April 24th by permission of the President.

Present: Drs. Hetherington (in the chair), Drapes, Rainsford, Benson, Green, Eustace, Redington Leeper (Hon. Sec.).

Letters of regret for non-ability to attend were received from Drs. O'Neill, of Limerick, Graham, of Belfast, and Nolan, of Downpatrick.

The Chairman said that before the business of the meeting was proceeded with, he wished to mention that since their last gathering their old friend, Dr. Maziere Courtenay, had been removed from amongst them. The following resolution was proposed by Dr. Drapes and seconded by Dr. Adrian Greene and passed in silence, the members standing in their places: "That the members of the Irish Division of the Medico-Psychological Association desire to record their deep regret at the death of Dr. Maziere Courtenay, late Inspector of Lunatics, who was for many years, and up to the time of his death, an honoured member of the Association, and for some time its Secretary, and to express their sense of loss of one who took an unflinching interest in the welfare of the Association. The Irish Division especially wish to express their appreciation of the excellent work he did as an Inspector of Lunacy, in raising the standard of Irish asylum administration generally, and in improving the condition of asylum patients, as well as of his cordial sympathy with the superintendents and medical officers of the various asylums, who feel that by his death they have been deprived of an able coadjutor as well as of a valued friend. The Irish Division wish to convey to Mrs. Courtenay and the members of Dr. Courtenay's family the expression of their sincere sympathy with them in their bereavement."

The minutes of the previous meeting were read and signed.

A letter was read from Dr. Finnegan, formerly Hon. Sec. of the Division, tendering his resignation as member of the Division, which was accepted with regret.

The election of the Hon. Secretary and two representative members of Council for the coming year was next proceeded with. On a ballot being taken, Dr. Benson was appointed scrutineer, and the following were declared unanimously elected by the Chairman: Dr. Leeper, Hon. Secretary; Dr. J. O'C. Donelan and Dr. Adrian Greene, Representative Members of Council.

Dr. James Fitzgerald, of Cork Asylum was nominated as examiner for the Certificate by the Irish Division of the Medico-Psychological Association.

Dr. Leeper and Dr. Adrian Greene returned their best thanks to the Division for their election to their respective offices.

The following were the dates fixed for the meetings of the Division during the year: Autumn meeting, Thursday, November 6th, 1913; Spring meeting, Thursday, April 16th, 1914; Summer Meeting, Thursday, July 24th, 1914.

Many members present wished that the Summer meeting of this year should be held at Cork asylum, and it was arranged to go to Cork for the July meeting if Dr. Fitzgerald could kindly arrange for it, and it was noted with pleasure that the President would probably be able to attend.

The Hon. Secretary read communications from the Chief Secretary and from Mr. Greer, Parliamentary Draughtsman, regarding the Mental Deficiency Bill and its proposed extension to Ireland, together with the result of the deputation recently received by the Chief Secretary for Ireland, in London.

A letter was read and approved of, from Dr. Nolan, of Downpatrick Asylum, enclosing a resolution of the Committee of Downpatrick District Asylum, drawing the attention of members of Parliament to the need for the Bill's extension to Ireland.

Dr. Rainsford stated to the meeting that he had recently had an interview with Mr. Healy, K.C., who was believed to be favourable to the Bill's extension to Ireland, and gave some valuable advice in the matter.

A cordial vote of thanks to Dr. Redington for his kindness and hospitality in entertaining the members at Portrane was proposed by Dr. Rainsford and seconded by Dr. Benson and passed unanimously. This terminated the proceedings.

## International Congress of Medicine.

### Section XII.—PSYCHIATRY.

#### OFFICERS OF THE SECTION.

##### *President :*

**Sir James Crichton Browne, LL.D., M.D., F.R.S., F.R.S.Ed.**

##### *Vice-Presidents :*

**Sir Thomas Clouston, LL.D., M.D. Sir George Savage, M.D., F.R.C.P.**

##### *Secretaries :*

**Maurice Craig, M.D., F.R.C.P. James H. MacDonald, M.B., Ch.B.  
Edwin Goodall, M.D., F.R.C.P. R. Percy Smith, M.D., F.R.C.P.**

The Meetings of this Section (with two exceptions) will be held in the Chemical Library of the Imperial College of Science and Technology, South Kensington. The Morning Meetings for Discussions will begin at 9.30 a.m., and the Afternoon Meetings for independent papers at 3 p.m.

The following are the Discussions arranged and the names of the Reporters:

**Thursday, August 7th, 9.30 a.m. (1)—**

**The Psychiatric Clinique: Its Aims (Educational and Therapeutic) and the Results obtained in respect to Promotion of Recovery.**

**Reporters: Dr. ADOLF MEYER, Baltimore, U.S.A.  
Prof. Dr. SOMMER, Giessen.**

**Friday, August 8th, 9.30 a.m. (2)—**

**Psycho-Analysis.**

**Reporters: Prof. P. JANET, Paris.  
Dr. KARL JUNG, Küsnach, Zürich.**

**Saturday, August 9th, 9.30 a.m. (3)—**

**The Psychoses of Infection and Auto-intoxication.**

**Reporter: Geh. Prof. Dr. K. BONHÖFFER, Berlin.**

**Monday, August 11th, 9.30 a.m. (4)—**

**The Syphilitic and the Para-Syphilitic Insanities.**

**Reporters:** Prof. Dr. W. V. BECHTEREW, St. Petersburg.

Dr. A. MARIE, Villejuif.

**Tuesday, August 12th, 9.30 a.m. (5)—**

**The Psychology of Crime.** (Jointly with Section XIX, in the Jehangir Hall, University of London.)

**Reporters:** Prof. Comm. E. MORSELLI, Genoa.

Prof. W. WEYGANDT, Hamburg.

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*Those who wish to take part in the Discussions are requested to send their names beforehand to Dr. PERCY SMITH,  
36, Queen Anne Street, W.*

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#### INDEPENDENT PAPERS.

To be read at the Afternoon Meetings at 3 p.m.

*Up to the time of going to press the following have been accepted:*

**Thursday, August 7th—**

(a) Recent Researches on the Functions and Anatomical Relations of the Frontal Lobes.

Prof. BIANCHI, Napoli.

(b) An Experimental Investigation into the General Nature of Dementia.

Dr. BERNARD HART, London.

Prof. SPEARMAN, London.

(c) Genèse des délires de persecution.

Prof. J. Lepine, Lyon.

(d) Eine neue Erklärung des Paranoiaproblems.

Prof. Dr. HEVEROCH, Prag.

**Friday, August 8th—**

(a) On Complement-Fixation, and on the Cell-and Protein-Content of the Liquor Cerebro-Spinalis: A Second Series of Observations.

Dr. E. GOODALL, Cardiff.

Dr. SCHOLBERG, Cardiff.

(b) On the Subject of Complement Deviation in Folie Circulaire.

Dr. LEWIS C. BRUCE, Murthly.



(c) **Les aliénés en France au XVIII siècle.**

**Dr. LUCIEN LIBERT, Paris.**

**Dr. PAUL SERIEUX, Paris.**

(d) **The State and the Feeble-minded.**

**Dr. J. C. McWALTER, Dublin.**

(e) **Délire Systematisé hallucinatoire chronique.**

**Prof. HENRIQUE ROXO, Rio de Janeiro.**

**Saturday, August 9th—(See also below)**

**Demonstration at the Pathological Laboratory of the  
London County Asylums, Claybury Asylum.**

**Dr. F. W. MOTT, F.R.S.**

(a) **A Card System of 3,500 Relatives who are at  
present or who have been in the London County  
Asylums, and explanation of the inferences so  
far deduced from it.**

**Pedigrees of Heredity and Insanity.**

(b) **Demonstration: The Living Neurone and its  
Oxygen Storage.**

**Spirochætes in the Brain of General Paralytics.  
Changes in the Nervous System in Pellagra and  
Hypothyroidism.**

**Monday, August 11th—**

(a) **Les déments des syphilitiques.**

**Dr. LAIGNEL-LAVASTINE, Paris.**

(b) **Recherches sur le rôle de la syphilis dans l'étiologie  
des affections mentales et les effets du  
traitement antisiphilitique.**

**Dr. JUQUELIER, Paris.**

**Dr. LEREDDE, Paris.**

(c) **Some Observations on Confusional Insanity.**

**Dr. W. H. B. STODDART.**

(d) **A Familial Form of Progressive Dementia running  
through Three Generations.**

**Dr. CHARLES L. DANA, New York.**

(e) **Eight Cases of Epilepsy traced to Solitary Alco-**

**holic Intoxications on the part of Parents otherwise Teetotalers.**

**Dr. MATTHEW WOODS, Philadelphia, U.S.A.**

**Tuesday, August 12th—**

**(a) Démence primaire et psychoses pseudo-déméntielles.**

**Prof. A. TAMBURINI, Rome.**

**(b) Natrium nucleinicum in der Behandlung der Dementia præcox.**

**Prof. Dr. JULIUS DONATH, Budapest.**

**(c) The Relation of Visceral Disorders to the Mental Disturbance of Adolescence.**

**Dr. D. J. McCARTHY, Philadelphia.**

**(d) Stammering as a Neurosis and its Treatment. (Subject treated from the aspect of psycho-analysis.)**

**Dr. M. D. EDER, London.**

**(e) 1. Abus et Exagération de la psychoanalyse.**

**2. Valeur et mode d'emploi de la psychotherapie dans le traitement de l'alcoôlisme.**

**Dr. Bérillon, Paris.**

The Afternoon Meeting on Saturday, August 9th, will be held at Claybury Asylum, when Dr. Robert Jones will show Members of the Section round the Asylum, and a Pathological Demonstration will be given by Dr. Mott. Arrangements will be made for those Members of the Section who wish to attend to be taken to Claybury by motor omnibus from the Imperial College of Science, South Kensington. Names should be sent to Dr. Percy Smith. Tea will be kindly provided at the Asylum.

Dr. E. Goodall, of the Mental Hospital, Cardiff, has undertaken the arrangements of the Museum Specimens for this Section, and is working with Dr. Armit, who is responsible for the management of the general museum of the Congress. Arrangements have been made for showing the plans of several of the London County Asylums. Facilities will be given for Members to visit Bethlem Royal Hospital, the London County Council Asylums, Darenth Colony for Mental Defectives, and Holloway Sanatorium, Virginia Water.

**ENTERTAINMENTS.**

A Garden Party has been arranged by the kindness of the Governors of Bethlem Royal Hospital on Thursday afternoon, August 7th, from 3.30 to 6 p.m., open to Members of the Congress, the number of guests being limited to 500. Those desirous of attending should apply early for tickets. Those who wish will have an opportunity of visiting the wards of this ancient and royal hospital for the insane.

The Sectional Dinner will take place on Thursday, August 7th, at the Imperial Restaurant, Regent Street, at 8 p.m. Those wishing to be present should send their names as early as possible to Dr. Maurice Craig, 54, Welbeck Street, W. The price of the dinner will be seven shillings and sixpence, exclusive of wine. Each Member is expected to pay for his own dinner and that of any guest he may invite.

The Lord Mayor of Cardiff has most kindly issued an invitation to lunch to those Members of the Section desirous of visiting the Cardiff Mental Hospital. As this will mean a whole day excursion from London, the date has been fixed for Wednesday, August 13th, the day following the closing of the Congress. Train leaves Paddington at 8.45 a.m. Breakfast can be taken on the train. Those who desire to go are requested to send their names to Dr. Maurice Craig, as above, as soon as possible, in order that the Lord Mayor may have time to make the necessary arrangements.

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It is hoped that Members of the Medico-Psychological Association will do everything to help the success of the Section.

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Application for Membership of the Congress must be made to:

Dr. W. P. HERRINGHAM,  
General Secretary,  
Albert Hall,  
London, S.W.

Donations to the general fund do not alone constitute membership of the Congress.

The subscription for membership is £1 for medical practitioners, and 10/- for the wives or daughters of Members.

## THE AFTER-CARE ASSOCIATION.

THIS Association, whose objects are to assist cases discharged recovered from asylums for the insane, has just held two important meetings. (1) On July 4th, at All Saints' Vicarage, Highgate, by the kind invitation of the vicar and Mrs. Hawkins. The chair was taken by the Hon. John Mansfield (Lord Chancellor's Visitor in Lunacy). The meeting was addressed by Mr. Stanley Keith, Mrs. Sikes and Mr. Thornhill Roxby. There was a large attendance, a good collection made, and several new members enrolled. (2) On July 8th, at Cane Hill, by the kind invitation of Sir James and Lady Moody. The chair was taken by Sir James Moody. The meeting was addressed by Sir George Savage, M.D., Dr. Percy Smith and Mr. Thornhill Roxby. There was again a very good attendance, much interest being shown in the work of the Association, and a useful addition to the funds obtained. A vote of thanks to the host and hostess was proposed by Dr. Campbell, and seconded by Dr. Pasmore, to which the chairman suitably replied.

This charity is the only one of the kind in Great Britain, and assists cases from all parts of the country.

## ASYLUM WORKERS' ASSOCIATION.

## ABSTRACT FROM THE ANNUAL REPORT FOR 1912.

THE Central Executive Committee beg to submit their Annual Report for 1912. The Asylum Workers' Association has, since 1895, laboured "to raise the *status* of asylum attendants and nurses, and to promote their general welfare" by all legitimate means, at the same time striving to impress its members with a due sense of the beneficent character of their calling, differentiating them from the mere mechanical worker. Ministering, as they do, to the needs of the most afflicted class of their fellow countrymen, they are rendering a national service, in return for which they merit every consideration at the hands of the public authorities, and the recognition of this by Parliament in the passing of the Asylums Officers' Superannuation Act of 1909 was the first evidence of the awakening of the national conscience to its obligations to asylum workers. The concessions then made were as considerable as could be obtained under the exigencies of Parliamentary procedure in the case of a private member's Bill, and the position of asylum workers generally throughout the three Kingdoms was thereby made more satisfactory and definite with reference to pensions than ever had been the case before. In order to secure this consummation, which even Government measures had previously failed to carry into law, it proved necessary to compromise with formidable, if unreasonable, opposition during the passage of the Bill through the two Houses, and unfortunately some of the points originally provided for had to be relinquished on the principle that "half a loaf is better than no bread." An attempt is now being made to remedy these unavoidable defects, and there is no justification for the allegations made that the A.W.A. is insensible to the remaining grievances of the rank and file in asylum service, for which the Executive Committee is always eager to grasp any opportunity of obtaining redress. We regret to have to record for the first time for several years a falling off from our membership, which at the end of 1912 stood at 4,310. There are, however, cheering signs of returning allegiance on the part of several asylum constituencies, many former members who withdrew having applied for readmission in 1913.

## CONVALESCENT FUND.

Grants of £2 10s. were made from this fund to twenty-eight cases (against twenty-seven in 1911), including the extra grant of £1 1s. under special circumstances.

These grants have been fairly well distributed throughout the United Kingdom, it being remembered that since June, 1912, the Irish Division have had a separate fund under their own control, £25 having been paid over by the Central Executive Committee to the Divisional Treasurer as a nest-egg. Considering that the Con-

valescent Fund is dependent upon voluntary donations outside membership subscriptions, a more liberal response to the 143 collecting cards sent out to asylums last year might reasonably have been expected, the twenty-eight returned bringing in only £27 16s. 11d. (as compared with £33 os. 3d. in 1911).

In addition to the twenty-eight grants, three grants of £2 10s. were also made by the Irish Division to their members, so that the total number of grants from the Convalescent Fund reached, in 1912, the record number of thirty-one.

#### MEDALS FOR LONG AND MERITORIOUS SERVICE.

At the last annual meeting eight successful candidates (from amongst eleven applicants) received at the hands of the President these distinctions.

#### PARLIAMENTARY PROCEEDINGS.

The Parliamentary Session of 1912, although memorable for its long duration, was not productive of any special legislation for the asylum service.

The Bills introduced by Lord Wolmer and Sir Charles Nicholson for the amendment of the Asylums Officers' Superannuation Act, 1909, unfortunately made but little progress. Although the former was backed by the members of the Select Committee, by whom it had been re-modelled, still, it was evident at an early stage that it would meet with strong opposition, and would have no chance as a private member's Bill. Our Parliamentary Sub-Committee therefore decided to concentrate their energies on pushing the more modest Bill introduced by Sir Charles Nicholson, in concert with Sir John Jardine, and after consultation with Sir W. Collins, but were soon surprised to encounter opposition from the Home Office to many of the clauses, including some that had been passed by the Select Committee. Great efforts were made at various times to overcome this opposition, but with little tangible result. Towards the close of the session, however, a deputation consisting of our President (Sir John Jardine), Sir William Collins, Sir Charles Nicholson, M.P., Mr. Duncan Millar, M.P., Dr. Nolan, President of the Irish Division, and other members of our Parliamentary Sub-Committee waited upon Sir William Byrne at the Home Office and discussed the Bill fully with him; and we are not without hope that as a result of such conference the Government may see their way to support the Bill in a slightly modified form.

It is generally conceded that unless special facilities are forthcoming from the Government, such a Bill can have no chance of success in the new session. Our President, Sir John Jardine, has, however, re-introduced the amending Bill (slightly modified to meet Home Office objections), of which Sir Charles Nicholson, M.P., kindly took charge last year, and on May 6th spoke in favour of its provisions. The Bill is influentially backed by members of varied political views, *viz.*, Sir John Jardine, Sir Charles Nicholson, Mr. Millar, Mr. Barnes, Capt. Gilmour, Mr. Wm. Redmond, Mr. Gordon Harvey, Mr. Crooks, Sir John Bethell, and Captain Campbell.

It is now universally recognised that the 1909 Act, even with its shortcomings, has been a real boon to the vast majority of asylum workers; and we find that in most of those places (the London County Asylums, for instance) where it was always the practice to grant reasonable pensions, the salary scales have been revised and increased. It must be admitted that there are certain hardships in individual cases needing redress, and experience has demonstrated the failure of Section 15 of the Act of 1909, which was intended to provide facilities for appeal in cases of dispute as to the superannuation rights of asylum employees, but which, owing to the interpretation placed upon it by the Law Officers of the Crown, has proved inadequate for the purpose. Should, however, our amending Bill become law, it is probable that but few grievances would remain for adjudication; but we still feel that it is unreasonable to expect persons in the position of attendants and nurses to have recourse to expensive litigation in the Law Courts to settle their differences.

Although only a comparatively small number are members of our Association, we have a genuine sympathy for those permanent Scottish employees who have been entirely excluded from the established list, as well as for those who have reason to complain of their classification. It is chiefly for their sake that we inserted a clearer definition clause in our new Bill.

The Committee have also been concerned as to the position of those engaged in the lunatic wards of Scottish poorhouses, and have determined to watch their interests.

With our Irish members, now organised as a National Division of the Association, we have every sympathy, and feel strongly that the low rate of wages current in many Irish asylums entitles them to special consideration. In such cases it seems no more than equitable that asylum committees should raise the scale of wages at any rate so as to cover the deductions now made for the purposes of pension.

The Mental Deficiency Bill, which was introduced into Parliament last year by the Government, but dropped before it passed the Committee stage, proposed creating new institutions for the feeble-minded; and as this Bill has again been introduced and seems likely to pass into law, the Parliamentary Sub-Committee will deem it to be their duty to watch the interests of those to be employed in the new service.

The passing of the National Insurance Act did not cause any great perturbation or excitement in the asylum service. In most asylums the committees had been in the habit of dealing reasonably and even generously with their employees in times of sickness, so that in those cases it did not require much consideration to see that, by pledging themselves to continue such practice, and to give disablement benefit when a superannuation allowance was not possible, they could procure a certificate of exemption which would prove to be a much cheaper way than working the Act.

A few committees, however, decided to apply the Act, but we doubt whether they will find it profitable policy.

From the asylum workers' point of view the Insurance Act is certainly beneficial, for it now means that any young attendant or nurse who might break down before being qualified for superannuation would have financial help; whilst those who contracted out of the Superannuation Act can look forward to a certain 5s. per week pension (or disablement benefit) when permanently incapacitated.

#### IRISH DIVISION.

The organisation of the Irish Division has proceeded under the presidency of Dr. Nolan (Down District Asylum), with Messrs. M. Brophy (Maryborough Asylum) and Mr. W. Hanna (Downpatrick) as Hon. Secretaries. Dr. O'Doherty (Omagh Asylum) has acted as Honorary Treasurer. Ten branches were in existence during the year 1912, and on April 11th the Annual General Meeting of the Division was held in Dublin and was addressed by the President, who set forth the condition and prospects of asylum legislation then pending, especially as it affected Irish Workers. A resolution in favour of the substitution of  $\frac{1}{10}$  for  $\frac{1}{8}$  as the rate in computing superannuation allowances was passed by the meeting, on the ground of inferior scale of wages and salaries in Irish Asylums as compared with those in England and Scotland.

#### "ASYLUM NEWS."

The Association is again indebted to Dr. James Nicoll for his able and gratuitous services in the editorship of *Asylum News*. At his suggestion Dr. J. F. Powell (of Caterham Asylum) and Dr. Ralph Brown (of Bethlem Royal Hospital), having kindly volunteered their services, have been appointed to act as Assistant Editors. It is hoped to make the magazine more and more interesting to our members, and the Editorial Staff will always welcome contributions of general or local interest, or hints as to the improvement of the paper. A "competitive fund" has been established (to which we invite contributions) for the purpose of giving periodical prizes to writers of essays likely to promote a better knowledge of the work required of asylum workers on behalf of patients under their charge.

#### ACKNOWLEDGMENTS.

The Executive Committee have again to express their gratitude to Mr. Henry Hipwell (late of Bethlem Royal Hospital) for making a collection amongst his friends in aid of the funds of the Association, amounting to ten guineas. Dr. Moore

forwarded as a contribution from Holloway Sanatorium the sum of £10 2s. 0d., inclusive of £1 2s. 6d. from the chapel offertory, and offertories at Leavesden (£2 5s. 3d.), Notts City Asylum (£1 5s. 9d.), Hellingly (10s.) formed welcome additions to the benevolent funds of the Association—examples which might be well followed in other asylums. Several of our Life Members and Vice-Presidents have been good enough to repeat their contributions from time to time, and some to send a guinea as an annual subscription, and to these we are specially grateful.

To Sir John Jardine the Association is greatly indebted for his valuable services as President, and for his continued efforts for the furtherance in Parliament of amended legislation in the interests of asylum workers, in which he has had the powerful assistance of Sir Charles Nicholson and Mr. Duncan Millar, to whom our gratitude is also due. The services of Mr. Morgans as Chairman of the Parliamentary Sub-Committee also call for grateful recognition, absorbing as they have a large share of his valuable time in correspondence and in attendance at the House. The Executive Committee have to thank the Rev. Dr. Kirkland-Whittaker for acceding to their request to act as permanent Chairman and so preserve the continuity of their deliberations. To Mr. W. J. Hill, of Virginia Water, we are again indebted for his kindness in auditing our accounts.

#### HONORARY SECRETARYSHIP.

It will be remembered that at the last annual meeting the resignation (on the ground of advancing years and increasing professional work) by Dr. Shuttleworth of the post of Hon. Secretary, which he had held since 1897, was reluctantly accepted, but that he was good enough to consent provisionally to carry on the duties of the office pending the appointment of a successor. It having proved difficult to find a suitable successor, the Executive Committee desire to express to him their obligations for having fulfilled these duties, with the able co-operation of Mr. Wilson, the Assistant Secretary, up to the present time. Owing to the recent serious illness of the latter, from which we are happy to add he is now nearly recovered, Dr. Shuttleworth's generous services have proved invaluable in the emergency, and it is difficult for the Committee adequately to put into words the appreciation which they feel for his unselfish consideration, during so many years, of the interests of the Association, in multifarious matters of which our members at large can perhaps form but a vague conception. As he still feels that the time has come for him to hand over the secretarial duties to a younger man, though recognising the relief experienced, since Dr. Kirkland-Whittaker and Mr. Morgans have been good enough to undertake a larger share of executive responsibility, the Committee trust that a suitable successor may ere long be forthcoming, and are glad to have the assurance of Dr. Shuttleworth that his active interest in the work of the Association will be still maintained.

#### THE LIBRARY OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Library is open daily for reading, and for the purpose of borrowing books. Books may also be borrowed by post, provided that at the time of application threepence in stamps is forwarded to defray the cost of postage. Arrangements have been made with Messrs. Lewis to enable the Association to obtain books from the lending library belonging to that firm should any desired book not be in the Association's Library.

The following books have recently been added to the Library:

White and Jelliffe.—*Nervous and Mental Diseases* (vol. i).

Franz.—*Handbook of Mental Examination Methods*.

H. di Gaspero.—*Hysterische Lähmungen*.

Kraepelin.—*Clinical Psychiatry* (third edition).

Overbeck-Wright.—*Mental Derangements in India*.

Dubois.—*Psychic Treatment of Nervous Disorders*.

Freud.—*The Interpretation of Dreams* (English translation).

Dr. R. Percy Smith has kindly presented to the Library ten volumes of the *Review of Neurology and Psychiatry*, and has offered also to present future volumes as they appear.

Application for books should be addressed to the Resident Librarian, Medico-Psychological Association, 11, Chandos Street, Cavendish Square, W. Other communications should be addressed to the undersigned at Northumberland House, Finsbury Park, N.

BERNARD HART,  
*Hon. Secretary, Library Committee.*

#### INTERNATIONAL CONGRESS OF NEUROLOGY AND PSYCHIATRY.

The Third International Congress will be held at Gand on August 20th to 26th, 1913. Dr. F. D'Hollander, 110 Boulevard Dolez, Mons, is the General Secretary.

#### NOTICES OF MEETINGS.

*South-Eastern Division.*—The Autumn Meeting will be held, on the invitation of Dr. M. Abdy Collins and by the courtesy of the Visiting Committee, at Ewell Colony, Epsom, on Tuesday, October 7th, 1913.

*South-Western Division.*—The Autumn Meeting will be held, on the invitation of Dr. A. N. Davis and by the courtesy of the Visiting Committee, at the Devon County Asylum, Exminster, on Friday, October 24th, 1913.

*Northern and Midland Division.*—The Autumn Meeting will be held, on the invitation of Dr. J. F. Dixon and by the courtesy of the Visiting Committee, at Leicester Borough Mental Hospital, on Thursday, October 23rd, 1913.

*Scottish Division.*—The Autumn Meeting will be held on Friday, November 21st, 1913.

*Irish Division.*—The Autumn Meeting will be held at the Royal College of Physicians, Dublin, on Thursday, November 6th, 1913.

#### APPOINTMENTS.

Evans, George, M.B.Lond., Senior Assistant Medical Officer at the New Essex and Colchester Asylum, Severalls.

Hanbury, Langdon Fuller, M.R.C.S., Medical Superintendent of the West Ham Borough Asylum, Ilford.

Hart, Bernard, M.D., Physician-in-charge of the Out-Patient Department for Mental Diseases at University College Hospital.

Hewson, R. Warrenne Dale, L.R.C.P. and S.Edin., L.F.P.S.Glasg., Assistant Medical Officer to the Coton Hill Mental Hospital, Stafford.

Hughes, William Stanley, M.B., B.S.Lond., M.R.C.S., L.R.C.P., Medical Superintendent of the Salop County and Wenlock Borough Asylum.

Hunter, David, M.A., M.B., etc., Medical Superintendent of The Coppice Mental Hospital, Nottingham.

Jones, Francis G., M.B., C.M.Aberd., Medical Superintendent of the North Wales Asylum, Denbigh.

Phillips, N. R., M.R.C.S., L.R.C.P., Medical Superintendent of the County Asylum, Abergavenny, *vice* J. Glendenning, M.D.Glas.

Plummer, E. Curnow, M.R.C.S.Eng., L.R.C.P.Lond., Medical Superintendent and Resident Licensee of Laverstock House, Salisbury.

Rambaut, D. Frederick, M.D.Dubl., Medical Superintendent of the St. Andrew's Hospital for Mental Diseases, Northampton, *vice* Dr. Bayley, deceased.

Shaw, John Custance, M.R.C.S., Deputy Medical Superintendent of the West Ham Borough Asylum.

Tighe, J. B., M.B., B.Ch., B.A.O.Irel., Medical Superintendent of the Gateshead Asylum, Stannington, Northumberland.



## INTERNATIONAL CONGRESS OF MEDICINE.

A collection of drawings and paintings, which are typical of the "artistic productions" of the insane, will, by the courtesy of Dr. Stoddart, be exhibited in the Recreation Hall of Bethlem Royal Hospital.

Sir George H. Savage, who is arranging the collection, will be much obliged if members of the Medico-Psychological Association will kindly send specimens of such work done by patients under their care.

# THE JOURNAL OF MENTAL SCIENCE

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## Part I.—Original Articles.

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*The Presidential Address, on the Prevention of the Insanities*, delivered at the Seventy-second Annual Meeting of the Medico-Psychological Association, held in London on July 16th and 17th, 1913. By JAMES CHAMBERS, M.D.

LADIES AND GENTLEMEN,—I thank you unaffectedly for the great, and, I feel, undeserved honour that you have done me in making choice of your President for the coming year.

In the long and distinguished roll of former occupants of this office may be found the names of men who possessed, in remarkable degree, the qualities of an ideal President; and my immediate predecessor has notably maintained the high standard set up by the greatest of those who have passed this chair.

In my own efforts to further the interests, to promote the objects, and to maintain the prestige of this Association, I will sedulously endeavour to follow their example; and I am confident that, in such measure as I succeed, I shall gain your approval.

On this occasion I do not propose to attempt any formal review of the progress, during the past year, of that branch of medicine with which we are chiefly concerned; but I cannot forego reference to the formation, by the Royal Society of

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Medicine, of a Section of Psychiatry, which has been auspiciously inaugurated under the presidency of Sir George Savage. By the courtesy of the Council of that Society, and of the various contributors to the Transactions of this Section, the pages of our Journal have been enriched by a record of its proceedings.

The multitudinous activities of our Association have been prosecuted, since our last annual meeting, with no less vigour than formerly ; and particular allusion must be made to that educational campaign which has been carried on so ably by one of our sub-committees, and which has been advanced by the publication of selected papers and reported discussions, dealing with the prevention and treatment of states of mental deficiency.

Our Association rightly holds the opinion that the dissemination of such knowledge of this subject as has already been acquired cannot fail to be fertile in the production of widespread benefits.

I would remind you, in this connection, that Prof. Lindsay, whose occasional and philosophic incursions into the columns of our weekly medical publications are a source of so much intellectual profit and pleasure, has recently observed that a complaint sometimes preferred against our profession in these days is that too little is done by way of instructing the public in the laws of health.

As he tells us : " The word ' doctor,' we are reminded, means ' teacher,' but the medical practitioner, it is affirmed, does little or nothing in the way of teaching. He practises and heals, but he does not teach. He is supposed to regard medical knowledge as the province and perquisite of his profession, not to be properly or usefully shared with the laity."

In my own opinion much circumspection is demanded whenever the instruction of the laity is attempted ; and I feel that our Association, by its recent action, has wisely shown how medical knowledge can be imparted legitimately, and with usefulness.

Consideration of this topic has for me a special interest, since it is hardly separable from that of the subject upon which I propose to address you to-day—a subject which I am persuaded commands your fullest sympathy, and which may not therefore be prejudiced, in your hearing, by my imperfect examination of it—the *Prevention of the Insanities*.

Nevertheless, I am embarrassed by the knowledge that, with regard to many of you, our positions should be exchanged, and I should be the listener.

I would therefore crave your indulgence when, as the exigencies of my task demand, I treat of matters that have already been discussed, with conspicuous ability, by others.

The bare statement that "prevention is better than cure" may be regarded as axiomatic; it is certainly so considered nowadays by the general public, and I am not concerned to be at pains to justify it to you. We all, indeed, hold it incumbent on those of us who have special knowledge, that we should perfect such measures of prevention as considered opinion may find desirable; and that we should be not weary in persuading our fellow citizens that there is justification in science, and in morals, for the propositions that we lay before them.

For, as it has been stated—"The time is past when it would have been sufficient to answer that it is the sole business of the doctor to cure or relieve suffering and disease."

Plato's advice, that physicians should not waste time on cases they cannot cure, has no practical application for us to-day; and there is common agreement that the function of the doctor, both now and for the future, is to prevent what may, as well as what may not be cured.

It is, however, something more than this; our aim is to prevent the incidence of disease on individuals, in such wise that we may, in shielding them, be exercising "cure" of the race—a task even less easy, though not less charged with compassion, than the alleviation of present suffering.

Yet there is but little community of opinion as to how we had best set about our business. Even if we restrict our efforts, as in this place we must, to a consideration of the insanities and the linked neuroses, the divers voices with which the chief prophets of the several schools proclaim their respective doctrines sound, if it be possible, even less accordant than when we enlarge our borders.

The writer from whom I have already quoted declares that it is one of the anomalies of the present day that preventive medicine is so largely handed over to a special class amongst

our profession, and one relieved from the cares and responsibilities of ordinary practice.

And need I, to this audience, express the hope that the experienced practitioner may not only give wise counsel and judicious warning in respect of those bodily ailments that so forcibly arrest his attention and compel his energies, and whose consequences, direct and remote, we, with him, so sincerely deplore; but that he may be enlisted also as a convinced worker in the ranks of those who find, in the prevention of the insanities, a field for prophylaxis that is second in importance to none?

Certainly at the present time much valuable work, in which many practitioners participate, is being done in investigating the prevalence and conditions, not only of physical but of psychical defect and disease, amongst the children who attend public elementary schools; and I would remind you of the admirable report on the Mental Inspection of School Children, drawn up by one of our Committees, under the chairmanship of our Treasurer. But, great as is the undoubted value of such systematic observation of the nation's children, one is tempted to inquire, What would not be the value of some systematic assay of the psychical and physical values of our adult population?

Is it not a necessary precedent of any considered attempt to lessen the incidence of the insanities, that we should be informed in respect, not merely of the number of persons undergoing special forms of treatment—this in great measure we already know—but of the physical and mental standards attained by the parents of those children whose biometry we are now so eagerly investigating?

The notion is not without attraction, even if its realisation be invested with difficulties.

If, however, the fullest measure of success is to reward our efforts, it is also necessary that some general conception be formed of the task before us. Our advice, and our plans too, for the future, must be based on something more than even scientific empiricism, lest our words fall on deaf ears. Nor should we be disposed, as many are, to propound plans and procedures based on the assumption that the attractive and absorbing dogmas of contemporary science are necessarily more than partial expressions of the truth.

Since the study of rational preventive methods must be largely concerned with causation, our starting-point is clearly indicated. But, as I hope to suggest, if not to demonstrate, we are inevitably concerned not merely with cause, but with purpose.

Overmuch concern with the purely mechanistic aspect of causation leads us, as Professor Hobhouse declares, to rely exclusively on that category of explanation from which purpose is excluded, when attempting to frame an answer to the queried "Why?" in relation to observed phenomena.

This category, it must be agreed, affords but a partial answer to the question; and there is another, in which Hobhouse finds that "conditioned purpose" which he believes to be the core of the world-progress, and which he accounts for as perhaps not having been fully defined from the beginning, but as in itself susceptible of development.

Be this as it may, those of us who are unable to coincide with all Hobhouse's views must join with me in welcoming the fact that so clear a thinker should have found mechanistic explanations inadequate; and should have recognised that the complete answer to the Why? that eternally confronts us is only obtained when we admit a teleological impulse working through mechanical conditions.

Some of us prefer to find, in the presence of this teleological impulse, evidence of design, rather than a factor which has itself been at one time less defined than now; but we may all agree that the life of man is full of hopeful purpose, and that the condition of our race may be improved by effort. I urge on you acceptance of this position in alternative to the pessimistic negativism of those who would exclude all operation of purpose from the processes that are around us. It is not necessary that this should be commended to you on biological grounds; but I am not ill-content to note that Hobhouse himself accepts it, as he says, not merely because it is attractive, not merely because it is harmonious with other beliefs, but because a careful review of the now considerable mass of available evidence shows that it is probably true.

Still, though we must not exclude the operation of this conditioned purpose from our purview when considering causation, we have no right to neglect estimation and measurement of the mechanical conditions by reference to which alone some would answer the questionings of human curiosity or investi-

gating zeal. Perhaps before no audience of medical men other than this could there be less need to insist on the complexity of the mechanically causative nexus in relation to the phenomena with which we have to do ; but I am unwilling to omit some reference to an essay, by Prof. Murri, dealing with traumatic neurasthenia, which appeared in *La Riforma Medica* last year, and has been rendered available to English readers by a translation that may be found in the *Universal Medical Record*.

Murri, certainly not for the first time, directs attention to the fatal tendency of so many medical men always to assign effects to particular causes ; and insists that this tendency is responsible, not only for internecine dissension, but for some loss of repute to the profession amongst philosophers.

He goes on to say that, since causation consists in the result of several individual factors co-operating in the production of one and the same effect, we, as practical physicians, should endeavour to assign to each factor its respective genetic importance.

Cause, then, in medicine, is a complex of determining conditions, or, if the words used by Verworn be preferred, a sum of conditioning agencies.

But the complex of causative agencies which we have to recognise in the case of the insanities is one which, if the phrase be allowed, has extension in two dimensions.

In the delirium of typhus fever, the physical agencies at work are presented to us in formidable rank ; but in certain insane conditions, which are hardly to be distinguished clinically from such delirium, we have to do battle with an enemy whose Indian file issues in dim perspective from the gloomy recesses of the unknown past. And in this arrangement of the forces that at different times confront us we find some indication of essential differences existing between the various insanities. Truly, the public are little inclined to reckon the alienation due, as we and they affirm, to physical causes, and amenable to the resources of the officinal pharmacopœia, as similar in nature to that which may defy all methods of therapeutics.

Possibly with the advance of knowledge we may find that there will become more clearly discernible than at present some line of demarcation between the insanities that disappear when physical states are rectified, and those whose causation

now appears to be more complex. Possibly investigation, in the not remote future, may justify us in removing yet more of the insanities from the latter category to the former. Time will show. But in the former event, prophylaxis in respect of both categories will be not less urgently demanded than at present: and in so far as the latter is accomplished, our methods will, fortunately, become more easily defined.

In prosecuting the arduous task of unravelling the complex tangle of causation, we may be momentarily discouraged by a sense of remoteness of the attainment, sometimes, of any true cure: but, on the other hand, we should be thereby stimulated in our efforts towards prevention, while recognising the unwisdom of initiating, through very excess of sympathy, procedures that may, in the result, frustrate our most cherished aims.

For caution is necessary; and, as has been well said by Hobhouse, "though every event may not be good, still every event proceeds from some combination of forces, each of which is somewhere necessary for fulfilment of the world-purpose." If in this dictum "the scheme of nature" were substituted for the last words, it would have commanded the uncompromising assent of the protagonist of design—the author of the *Analogy of Nature*.

The earliest part of our task, then, in this matter of prevention, will not have been completed until the explanation of the occurrences that we desire to obviate can be given, not merely in mechanistic terms, but in those of teleology.

A new importance has been given to the unwinding of the causal chain, by the recognition of the unconscious memories of bygone days as determining forces in the psychoses of maturity. Perhaps, however, the modern use of a strange and esoteric diction may, in some measure, obscure the usefulness, as some too curious investigations tend to obscure the wholesomeness, of a form of investigation which has been practised, and deemed important, for many years.

Long ago, Oliver Wendell Holmes, in speaking of the "rosy pudency of sensitive children," taught us that "the first instinctive movement of the little creatures is to make a *cache* and bury in it beliefs, doubts, dreams, hopes and terrors!" . . . "Everybody has had his childish fancies, but sometimes they are passionate impulses which anticipate all the tremulous emotions belonging to a later period."



For us, indeed, contemplation of the causative chain brings with it intellectual anxieties that those who deal only with bodily diseases esteem but lightly.

I have no intention, however, at the moment, of attempting to find a path through metaphysical mazes ; but will merely ask if the ætiological relationships between some states of body and mind, as we see them, have ever been more neatly expressed than by the dreamer amongst the water-lilies of the Ouse, when he wrote, with pleasant homeliness ;

“ Faults in the life breed errors in the brain ;  
And these, reciprocally, those again.”

That purpose is, in any sense, involved in the occurrence of the insanities may seem to some a conclusion to be accepted reluctantly, if at all. The orthodox view of the existence of evil in nature has been stated for all time by Bishop Butler ; the biologist, on the other hand, cannot refuse to admit that, according to his own schemes of philosophy, disease has played no small part in man's progress, or, if you will, in his evolution.

In saying this, I do not refer so much to such accidents of time and place, as trypanosomiasis and malaria, as to those diseases which, like tuberculosis and insanity, are intimately associated with peculiar bodily and mental dispositions.

Mongour, of Bordeaux, in a powerful address, recently delivered at Athens, that may be found in the *Journal de Médecine de Bordeaux* for 1913, regards tuberculosis as a “ malady of selection,” an agency that suppresses, not merely the weak, but those who are not endowed with the capacity for adaptation ; and he points out that, even should we render the malady so rare as to be practically exterminated, it is at least probable that some other agency would arise which would kill off those who have exhausted their bodily or mental capacities through vice or even through excess of self-sacrifice and devotion. It is interesting, from our point of view, that he reinforces his position in thus regarding tuberculosis, by drawing a parallel between that disease and the depraved mental conditions which he considers, in the world of mind, play a part analogous to that with which he credits the bodily vice of tuberculosis. And, so far from suggesting that our duty is but to submit with resignation to the play of forces around us, he urges that, in combatting tuberculosis, we should, as in struggles against

mental and moral disease, not trust entirely to administration and legislation, but should appreciate and inculcate the value of personal effort. Indeed he finds that tuberculosis, as well as moral disease, plays the part of a selective agency by virtue of its capacity for evoking favourable response in certain individuals.

This individual capacity, or incapacity, for response is a factor greatly overlooked by those who rely entirely on State or communal action in matters of prophylaxis. Indeed, Mongour goes so far as to regard the family as the largest unit in respect of which conservative action should be taken by the State. In the preservation of the family there is a *via media* between stark individualism and over-administration.

Capacity for response is the equivalent of personal effort, and Mongour finds in Longfellow's familiar injunction to us to be "Up and doing, with a heart for any fate," a practical lesson as well as an ethical precept.

With this we may agree, and, in our turn borrowing an illustration from the literature of general medicine, note that, as Sir Richard Douglas Powell has recently said, the essential difference that determines whether this case will do well on tuberculin, or that one should be segregated in a sanatorium, lies not in overt clinical appearances so much as in the presence or absence of the capacity to respond to the stimulus of the toxin.

This use of the clinical phenomena of tuberculosis, for the purposes of illustration, has yet other applications which, if not strained unduly, may be helpful to us, as Dr. Crookshank pointed out some time ago in a paper recently republished in his volume of Essays.

Just as we no longer regard the ordinary manifestations of pulmonary phthisis as constituting a disease, but rather as the final expression of a long series of events, taking origin in childhood, and perhaps latent during many years, so must we regard many of the acuter outbursts of insanity as members of a series initiated in very early years.

And, just as the cure of a phthisical patient in a sanatorium is no definitive cure, but rather the arrest or masking of an almost lifelong process, conditioned largely by earlier circumstances of the germ-plasm, so we may speculate on the sense in which we apply the word "cured" to some patients whose

period of acute mental disorder has been happily guided to recovery. Yet, on the other hand, we know that, of two persons exposed to tuberculous infection, though one may be taken and the other left, it is, as Calmette has shown, the town dweller, brought up in an unfavourable environment and poisoned from his youth upwards, who survives, whilst the healthy immigrant from the country is destroyed. Sir George Savage has likewise said, of one struck down by acute mania, that here a bad family history was in the patient's favour.

These reflections are not, I think, altogether irrelevant to our discussion of the prevention of the insanities.

For we may fairly ask ourselves whether, since purpose is involved to some measurable extent in the occurrence of morbid states, and the existence of what Charcot used to call "agents provocateurs" may be of indirect advantage to the race, we should be right in setting up as the goal of our activities a Utopia from which all such agencies and factors would be excluded?

There is as much truth as wit in the remark of a transatlantic critic to the effect that devisers of Utopias, from Plato to the author of *Erewhon*, have, without exception, taken account of almost everything, save human nature! For a Utopia in which human nature has operative force is manifestly inconceivable, and the construction of schemes to that end, however pleasant as a literary exercise, can therefore have but little interest for practical people.

Perhaps it is some consciousness of this fundamental irrelevancy of Utopia-making to the problems of our day, that is responsible for our frequent evasion of the plain duty of thinking things out; and for otiose resort to the enunciation of some sufficiently plausible principle or, what now passes as such, the vain repetition of some attractive catch-word.

What fate will ultimately befall these partial solutions, these imperfectly stated propositions, now so generally yet inadequately discussed? What chance have they of being brought to the touchstone of practice? And what, if we are not to desire Utopia, should be our practical aims?

These questions are, by each of us, too often resolved in accordance with our inborn tendencies; some hanker after community of action, others naturally favour unrestricted competition. This man finds gratification in self-suppression; that

one lives but to promote his own aggrandisement. We apply our personal predilections to the case of the State ; and while some, instigated by impulses of compassion and actuated by hope, urge that we should not acquiesce in the suppression of those who, by the unimaginative possessors of rude health, are regarded as unworthy weaklings, others think that ruthless administrators and fearless legislators may, in the Old World, rival the sanitary achievements of our cousins in Panama.

Yet, as I have already suggested, the case of tuberculosis and the insanities is not that of malaria and yellow fever. These latter are events of to-day : matters of a parasite, a fly, and an opportunity ; and can be controlled by the active sanitarian, with his squad of assistants. But the factors concerned in the production of tuberculosis and the insanities have been operative since the earliest dawn of man's history ; they have been, and are, inseparable from civilisation ; nor can we well attempt to determine in what measure they have influenced our progress. And, as co-ordinators and commentators of the information afforded us by many and eager specialist workers, we must admit that the tendency to disease or to defect is, in a word, the cost of our organisation, and that the persistence of the tendency is, by reason of the combative efforts that it evokes, a concomitant of, if not an actual factor in our progress.

Murri, for example, regards the liability to hysteria and neurasthenia as the price paid for those peculiarly human privileges, the capacities for sensual and emotional enjoyment that coexist with the related capacity for sorrow and suffering.

"Man differs from his inferiors, too, not only in his potentiality for present enjoyment, but by his powers of recalling the past, and anticipating the future."

Certainly, whatever be the precise attitude that we may, individually, be disposed to maintain, in respect of the actual utility, as some would say, of what seems to us evil, we cannot refuse to admit that it is as true of the mental as of the physical organisation that instability is characteristic of greater complexity, greater heterogeneity, and more perfect differentiation. If it be true that "He that is down needs fear no fall," it is no less true that, the higher man ascends, the greater is the liability to fall ; and the greater, too, the consequences of a stumble.

I say advisedly, the greater is the risk of falling. Perhaps some would say, the greater is the natural probability of declension. The actual incidence of catastrophe is reduced by the exercise of that unremitting watchfulness that is developed by the occasion ; but, even so, the consequences of what in other circumstances are mere trivialities may be disastrous. The accidental electrocution of a cat at Greenwich recently deranged the traffic of our metropolis for a week, and, quite lately, a similar accident on the banks of the Hugli plunged Calcutta in darkness.

When else but in our times could the divagations of a cat have entailed such consequences ?

From a purely naturalistic point of view, then, we may expect not necessarily an actual increase of insanity, or of the insanities, as life becomes more complex, but an increase in the natural liability for breakdown to occur, in correspondence with the increasing precision required, in adjustment between the inner and outer relations of which life is made up.

But, men are now everywhere persistently engaged in planning how best the risks entailed by our material progress may be averted ; and so ought we to address ourselves to the task of lessening the actual incidence of those mental catastrophes to which the increasingly complicated adjustments of modern life expose us.

Man now, more than at any other period of his career, has entered into what hitherto has been regarded as the "not self" ; now, more than at any other time, he controls the forces that surround him, and harnesses them to the purposes of his race.

And as we do this, so we are assisting in the fulfilment of that purpose which is only accomplished when the stimulus of necessity has provoked the appropriate reaction : so, too, are we bending the evils of disease and accident to the furthering of the destinies of the race.

Yet only if we press forward. No counsel, I am persuaded, can be more disastrous than that which would bid us shirk some dangers by a return to lower planes of life. As well should we go back to the jog-trot of the stage coach to avoid the catastrophes now attending the conquest of the air. The way of safety is not to be found in listening to the timorous clamour for a halt, and we have no real choice save between the possible dangers of the advance and the certain demorali-

sation of the retreat. We cannot sit down and entrench ourselves against all possible mishap. Not thus has man's dominion been achieved ; not thus can his conquests be secured. Our task is rather to win what—

“ higher prizes still await,  
The mortal persevering to the end.

\* \* \* \*

For these things tend still upward, progress is  
The law of life, man is not Man as yet.

\* \* \* \*

But when full roused, each giant-limb awake,  
Each sinew strung, the great heart pulsing fast,  
He shall start up and stand on his own earth,  
Then shall his long triumphant march begin,  
Thence shall his being date,—thus wholly roused,  
What he achieves shall be set down to him.  
When all the race is perfected alike  
As man, that is ; . . .  
But in completed man begins anew  
A tendency to God.”

The Victorian poet who penned these lines did not doubt that the duty of mankind is to go stoutly forward, bent on accomplishing the allotted destiny; and he knew well that, since this destiny involves, not the aggrandisement of self, but the advancement of all, it may only be fulfilled if heed be taken of the weaklings passed over by those who glorify the Nietzschean conception of a Superman. This, too, not merely for the sake of those helped, but for the sake of the helpers, since the strong man who helps not the weak is never so strong as he who does.

But, whatever poets thought or said, the Victorian men of science obstinately attempted to exclude purpose from their purview, and answered the insistent Why? in mechanistical terms of causation only.

Huxley himself was hard put to it to justify what he called the Ethical Process, and to explain how it is, that that which his fine instincts led him to accept, should have come to be imposed upon that other process he called Cosmic.

Yet, in the noble peroration to his Romanes Lecture, he urged us to play the man, cherishing the good that falls in our

way and bearing the evil in and around us with stout hearts set on diminishing it.

The philosopher of to-day, the Victorian scientist, and the eighteenth century champion of orthodoxy all agree, therefore, in this—that the evil around us may be diminished by directed effort.

There is no longer place for any conception of man as the sport of the gods ; as the cork tossed in the whirlpool ; as the passive toy of conflicting forces. The magnificent gloom of the Greek tragedians, the melodious pessimism of Omar and of Fitzgerald, the despairing fatalism of such modern masters as Hardy, may awaken some echo in the minds of many ; but it is the relaxed rather than the well-attuned chord that responds.

For, if effort and purpose be taken into account, as chief influences tending to further progress and diminish disease, the ethical process is practically justified of its existence, in a world which we can no longer reckon controlled by the "cosmic process" alone. How partial and inadequate, then, must be any method of prophylaxis that is devised in the similitude of natural selection, and of survival of the "fittest" !

We may or may not accept the ingenious terminology of Hobbhouse and of Sutherland who give, to that series of advances in the development of mind that has involved a parallel curtailment of the sphere of natural selection, the title of Orthogenic Evolution. The attempt, and, as some think, the not altogether unsuccessful attempt of Benjamin Kidd, to demonstrate what was once called the glove on Nature's iron hand, has indeed been renewed ; and, in a word, the essential ethical teachings of Christianity have been found by modern thinkers necessary components of those forces, by which alone they can conceive the mind of the race to have developed. For, be it observed, the vital element in the conception of orthogenic evolution is the working with, and for our fellows.

It is often insisted that what is true of the individual is true for the race. It is no less certain that what is true of the race is true for individuals. And, just as practical physicians in the sphere of general medicine recognise increasingly the need to take account of biological truths in explaining personal disease, so also should we, as psychiatrists, recognise that the factors in human racial progress which we speak of as effort, purpose, control, and sacrifice, have a share in the personal

development of mind not overshadowed by what we call heredity, selection and environment.

Our discussion of the prevention of the insanities cannot be divorced from these topics. We, better perhaps than others, should be able to advise in what measure and direction these qualities and forces should be applied, and how the weaklings can best be helped.

The adjustment of inner relations to outer relations that Spencer found in life signifies but the fitting of pegs into holes ; and our task in the prevention of mental disease and disability is in great measure that of helping in this sorting up. But the sorting up does not involve only the estimation of proportions ; questions of material, of durability, and of construction have also to be settled when determining suitability of design for purpose. So, while giving due weight to the operation of the 'ethical process,' we must not ignore the operation of the factors, still active, of that which is cosmic, controlled though it be by the former, as is a steam engine by the governor valve. We must acquaint ourselves with these, lest our well-intentioned endeavours be no more fruitful than the efforts of a child to assist the time-keeping of a clock by the intrusion of a rod into its mechanism.

It were foolish to suppose that even yet we are near to an understanding of the "scheme of things entire," but at least it may be said that the last few years have marked enormous advance. Some slight survey therefore of the general position cannot well be omitted on the present occasion.

That existing stocks are susceptible of modification for what we deem better or worse, as a result of interplay between what we call heredity and environment, has been the general belief for a period "whereof the mind of man runneth not to the contrary." Yet the most diverse views have been, and still are held, as to the manner in which these agencies operate.

The schools both of Darwin and of Lamarck recognise heredity as a compelling influence in determining modification of stocks ; but while the Darwinians recognise environmental circumstances as automatically selecting for survival advantageously varied persons, and for destruction those not so varied, the early Lamarckians found in the environment a stimulus provocative of advantageous adaptation—of purposive response,



though of course the term "advantageous," in this connotation, carries with it no suggestion of conformity to any absolute standard. It refers merely to characters that have relation to the preservation or advancement of the species.

The Lamarckian doctrines, therefore, required belief in the transmission of acquired characters ; and, contrary to what is so often stated, Darwin himself did not reject belief in this dogma. Even Nussbaum, who first formulated the notion of the continuity of the germ-plasm, did not conceive it to militate against the theory of the transmission of acquired characters, as did Weismann in his ample reliance on the all-sufficiency of natural selection. Notwithstanding, ever since the predominance of the school of Weismann, in England, at any rate, the neo-Darwinians have persistently followed Alfred Russel Wallace in excluding from transmission by means of heredity, all those variations in structure and efficiency that are not inborn ; and while doing this, they have signally failed to elucidate, to the satisfaction of others at least, the cause of the occurrence of variations, other than those that are acquired.

The Lamarckian hypothesis, which, as both Hartog and Chalmers Mitchell have insisted, finds in some variations at least evidence of purposive response—much as Hobhouse finds evidence of response in the psychical world—was swept from the field. The rise into prominence of Mendelism, and the importance shown by Bateson, de Vries and others to attach to the study of discontinuous variations or mutations, temporarily heartened those who recognised the failure of both Darwin's and Weismann's attempts to explain congenital variations, though it seemed to have been forgotten that even such ingenious suggestions as that, in the extrusion of the polar bodies, Mendelian determinants are got rid of in accordance with the law of probability, and that, in accordance with this law, discontinuous variations must arise, are really no explanation of why variations occur.

On the other hand, the notions of Lamarck, that have more lately undergone vigorous revival, do afford us some light and guidance.

It is interesting now to look back on the many years that have passed since Samuel Butler, whose fatal gifts of subtle and ironic humour destroyed his credit with Englishmen as a thinker, gave us in his own words, and in his own way, much

that had been already re-stated and expanded by Hering, whose famous address on "Memory as a Universal Function of Organised Matter" was delivered in 1870. In Butler's *Life and Habit*, as in later works, the "doctrine of continued personality from generation to generation, and of the working of unconscious memory throughout"—to use Prof. Hartog's words—is brought out forcibly. But Semon, who has so brilliantly extended this conception of continued personality into that of racial memory, will, we may agree, "never be able to complete his theory of 'Mneme' until . . . he forsakes the blind alley of mechanisticism and retraces his steps to reasonable vitalism."

Now it is in "reasonable vitalism" that the rational explanation of Lamarckism may be found, as was foreshadowed with some exactness by J. T. Cunningham several years ago; though others had thrown out earlier hints.

This development of Lamarckism, or of neo-Lamarckism, that is now referred to under the name of Hormonism, has, in its latest phases, been admirably summarised by Adami in the powerful and impressive address entitled "Unto the Third and Fourth Generation" which he delivered last year before the Canadian Medical Association.

Herein he lucidly expounds how it is that all Lamarckians must believe, with the most ardent of Weismann's followers, in that continuity of the germ-plasm which alone enables us to understand the provision made for the repetition of necessary characters, and which explains to us the relation between ontogeny and phylogeny.

But now the neo-Lamarckians, knowing that ontogeny is not always an exact reproduction of phylogeny, and finding that the living organism is capable of being profoundly modified by the changing influences of its environment, are persuaded that at least such of these modifications as are expressions of "purposive" response to stimulus are indeed transmissible to the progeny. This is, however, not all.

In Adami's own words, the essential germ-plasm is not inert and incapable of being influenced; it is susceptible to physical and chemical agents affecting the body. Intoxicants and the poisons of infectious disease absorbed by the parent are apt to cause instability and imperfect development of the nervous system, showing itself in epilepsy, imbecility and insanity in

the offspring. It is, indeed, "a ghastly record," though the comfort is that "if there are agents which thus act deleteriously upon the germ-cells while in the body of the parents, there must be other agencies capable, in favourable conditions, of benefiting the germ-plasm and improving its qualities."

"Favourable environment thus leads to improvement of the race and progressive evolution."

How does this occur?

Well, we may agree with Weismann that merely quantitative acquisitions or deprivations are not reproduced; but it is in evidence that modifications of the soma, originating during the life-time of the individual, may so affect the already segregated germ-cells as to induce a like modification in the progeny; and this by means of the reaction on the germ-cells of the particular balance of the internal secretions obtaining at the time in the parents. The full proof may not yet be forthcoming, but sufficient is known to give us confidence in suggesting that on such lines will the ultimate reconciliation of conflicting views be obtained.

We can as yet only vaguely speculate on the limitations that may be imposed on the possibilities of that wonderful organ-complex in which the chromaffin system plays so important a part. Not only may the activities of this curious paired set of structures, half nervous and half glandular, be linked with sources of material pleasure and pain, but with the subtler origins of joy and sorrow. Not only are they concerned with the expression of our emotions: but, perhaps through their presidency over segmental divisions of the body, they may translate into deformity or deficiency deleterious influences that have played upon the plastic structure of the pregnant mother.

But if, as seems probable, direct results of evil influences are thus incurred, there is reason to believe that the gain implied by the responsive effort to carry out a defensive reaction is transmitted from parent to offspring on more favourable terms.

We return, then, to find, in the latest biological teachings, a renewal of an idea inculcated by the older Lamarckians—by the forerunners of Darwin. And this idea—call it vitalism, call it teleology, or what you will—expressing our appreciation of the ultra-mechanistic reasons for occurrences, is that which, as I

attempted to show you in an earlier part of this address, has been lately revived by some of the most intelligent of our thinkers, in a different form perhaps, but in essence as when put forward by Bishop Butler a hundred and fifty years ago. It is the idea of the value, not alone to the individual, but to the race, of personal response by effort, when exercised towards the overcoming of difficulty.

If any critic hints that I find some advantage, or some purpose, in the existence of what may be the cause of physical or moral ill, in order that I may pave the way for excusing a failure to find a means of abolishing it, I may retort with the Bishop (who would have delighted in the wealth of analogical opportunity afforded him by the medical science of to-day), that, just as in the natural world, there are diseases, themselves remedies, which bring their own cure, yet are not, therefore, to be encouraged, so in respect of other evil we are not the less under obligation to refrain from occasion of stumbling because of the strength that may be gained through repulsion.

We may go further, I think, and, while recognising the limits within which adaptative or defensive response may be provoked, acknowledge that there is an ambit within whose lesser confines the occurrence of response may be self-determined.

We may not care to support Sainton, who finds in the predominant position perhaps held by the pineal gland in the physiological balance of power, some possible justification for the notions of Descartes concerning that famous organ ; but I submit to you that, in the interests of the individual and of the race, we should recognise an expression of fact of vital importance in the simple words of Henley, himself not the least of sufferers :

“ It matters not how strait the gate,  
How charged with punishment the scroll,  
I am the master of my fate ;  
I am the captain of my soul.”

If I have ventured to discuss, although only allusively, some of the most intricate problems by which biological science is vexed, it is because I conceive that an apprehension of their complexity is an ingredient of positive obligation in any disquisition on the prevention of the insanities, and also because, whatever our views as to the ultimate relation between mind

and matter, and however perfectly or imperfectly we may deem it symbolised or expressed by this or that form of words, as practical physicians we act, and plan our actions, on the tacit or acknowledged assumption that the workings of mind are conditioned by physiological processes.

Even the most devoted professors and practisers of what are now called methods of psycho-therapeutics do employ such physiological processes, as at least the vehicles or excipients of their active principles. Nor can they deny, if such physiological expression of emotion as a blush be sometimes the outcome of their healing arts, that their investigation and treatment have been conducted through physiological channels, whatever the psychical concomitants arising during the transmission from the tympanum, through the cortex, to the vasomotor periphery, of those molecular perturbations we call nervous impulses.

I have no desire to be thought one who holds the prevention of the insanities to be a purely biological problem, or that we have no concern with any higher springs of action than those which are visceral ; but it is nevertheless true that biological and physiological aspects cannot be omitted from our survey, and that the fundamental differences in thought between the rival schools of biological science are reflected in the schemes of social experimenters and revolutionaries.

Some social regenerators, in whose minds the factor of heredity and the Mendelian apparatus loom largely, would breed men from pedigrees and to type ; others, whose concern is rather with the individual, seek amelioration of his lot and qualities by providing him with the spiritual and material comforts they best appreciate themselves ; others, again, who have won their way to some position of apparent success, proclaim loudly the advantage to the race of unfettered competition. Less clearly heard of late years have been the voices of those who find, in directed effort and in the recognition of such obligations as those of duty and care for others, factors operating benevolently both for the individual and for the race. Yet, it seems now not unlikely that they, after all, are in real agreement with the later teachings of science, which, rather tardily perhaps, has discovered that failure to recognise these obligations does entail disaster unto the third and fourth generation.

It is to the application of these teachings that I now desire to draw your attention.

Hitherto, formal consideration of problems of prevention has been principally devoted either to the individual as progenitor—a mere shell for a segregated germ-plasm, in which determinants and unit characters, removed from the operation of influences affecting the surrounding soma, are already neatly sorted out for rearrangement in accordance with mathematical laws—or to the individual as a social unit, differing from his fellows merely in opportunity and circumstances, and who, in the absence of gross disease, owes but little, in praise or blame, to his forbears.

Now, in the light of recent work and thought, we must consider the individual, not merely as a progenitor, not merely as an isolated social unit, but as the likely parent of immediate offspring to whom he owes personal responsibility.

Not that every acquired character is necessarily transmitted, but that, so far as we know, those transmitted are those acquired as a result of response for good or for evil to external stimulus.

Those who may doubt the celerity with which the immediate offspring may, by variation of the environment, be induced to part with even long-possessed racial characters, should consult the work of Boaz, of Columbia University, who has found amongst the proximate descendants of immigrants into the United States, evidence of the most noticeable instability of human types. Beside the work of Boaz, however, that of Sigaud and Vincent in their treatise on the Origin of Disease, and the more speculative writings of Sera, should be consulted.

That not even those characters should survive immigration which in former surroundings were most permanent, and that the “whole bodily and mental make-up” should change, can hardly be explained, unless we agree that parental conditions do affect the germ-plasm.

Be it noted that, in the case of immigrants to a far country, this factor of purposive response, of personal attempt at adjustment to new surroundings, is clearly present; and that we have to do with very different conditions from those obtaining when, let us say, passive transportation is effected. Those very factors are present, in the case of immigrants, which, *ex hypothesi*, are requisite to produce the maximum variation in the progeny.

How lasting may be the effects on the race, of this form of

transmission, it is not easy to say. Some biological facts that are paralleled by others known to us in the world of medicine suggest that faults may be "bred out" in the course of not very many years. Perhaps not only faults but points of positive merit also disappear if due response to repeated stimulus be not maintained. If so, I think the words "unto the third and fourth generation" may have a very special significance.

It would seem, then, that biological science, having recognised the existence in the germ-plasm of unit-characters that are removed from modification by the operation of influences affecting the parental soma, as well as of characters and qualities in the same plasm that are subject to such modification: and also of conditions which, though operative in respect of the parental soma, have yet no effect on the enclosed germ-cells: should now be diverted towards the definition of the limits within which these conditions obtain.

Then and only then shall we, as practical physicians, have some sure ground, other than that afforded by empirical observation, on which to build our harbours of refuge from disease.

And, although it is certainly desirable that, in considering this subject of prevention, we should so far as is possible keep present in our minds the three functions of the individual—as progenitor, as parent, and as social unit—it is, until the biologists have carried their investigations further, difficult to assert with confidence in which of these three capacities the individual will be most affected by any devised scheme of personal or social melioration.

We may, however, consider certain attempts to formulate measures for the improvement of the race, and for the prevention of disease, that are based simply on recognition of the individual as a more or less accidental shell for so much germ-plasm of pre-determined characters.

In earlier days such measures took the form of the assignation, to those whose prowess gave them pre-eminence in war, of the privilege of domestic establishments on no inconsiderable scale. In recent years there has been movement tending to the encouragement of what may be called selective mating—of mating, that is, in which the selection is effected in accordance with certain rubrics, or with the preferences of others than the persons primarily concerned. Such suggestions have formed a

part of almost every Utopia that has yet been devised; a real difficulty is, however, that we are not yet sure what canons of selection should be enunciated in the interests of the race.

Another, and more generally accepted, thesis is that, even if we are not sure which marriages should be encouraged, others should certainly be deprecated. With this we agree, and rejoice that, in the very near future, a measure will be placed on the statute book which, by enforcing segregation in certain well-defined circumstances, will prohibit opportunity for procreation.

Yet must we hasten slowly.

That segregation, to this end, is justifiable in respect of those included in the limits within which treatment, education and material amelioration are powerless to provoke favourable response, is indubitable.

On the other hand, there are considerations that may well give us pause when we are asked to assent to extension of these proposed restrictions.

In the cases to which allusion has been made, and for whom legislation is now most properly being considered, we are but anticipating the operation of Nature's inexorable decree, by whose virtue mental and physical defect of a certain grade is allied to procreative insufficiency, terminating the strain if it be not reinforced by the infusion of healthy blood.

As medical men we should know better than to interrupt, without fullest justification, processes that, though we may deem them morbid, have yet been operative for long, or to destroy the continuity of a germ-plasm that has been productive in the past and may be so again. If we do so presume to interfere, we may find, as often at the bedside, that we have deranged, not a morbid process, but some unsuspected and conservative agency. Did not Sir William Gull once seek to reassure an apologetic practitioner, who deplored his failure to have detected a murmur, by the comforting suggestion that it was as well, since if he had heard it, he might have treated it!

We must remember that many of those whom the world could ill have spared have been born and nurtured under conditions that all good eugenists would deplore; and that even if, given complete executive control and full knowledge of all the determinants involved, the propagation of a perfect race on Mendelian lines were to be attempted, there must be failure



owing to the intrusion of the various factors and agencies that limit the application of the Mendelian theories, and that have differentiated mankind from the produce of the nursery garden and the hot-house. Moreover, if there be one lesson to be deduced from the teachings of de Vries and his school which, more than any other, is of interest to us, it is that, even if all those found unfit on the application of an arbitrary standard were, from to-day onward, segregated with rigour, and all others provided with the best of environments, yet would the undesired variations appear again—"in obedience to the laws of probability."

Mendelism and the theory of mutations must not be our only guides.

Truly, there is one lesson to be learnt from experimental Mendelism. Whether in the nursery garden, or in the stud-farm, principles are applied, and empirical observations are utilised, to breed to some definite purpose in a standardised environment. Now, were it accepted that the fittest to survive, under the operation of natural selection, are indeed the best, it could not be denied that some extreme eugenists would be justified. But the "fittest" for survival in a certain environment are not necessarily the best, if the purposes of the whole race are considered; nor do the fittest conform even approximately to one type unless the environment be first standardised and then rendered immutable.

These questions of standardisation of type and environment, as well as of the purposes in whose respect adaptation is to be desired, are deserving of attention; and the oriental system of caste, that has been in operation for many centuries, does afford us example, on a prodigious scale, of the application to mankind of certain principles of selection and reproduction.

It may be observed that this system, through the rejection of pariahs and in other ways, does secure the elimination of some unfit, and is linked with an intense conservatism that has preserved environment unchanged in the manner that biologists hold necessary if type is to be unaltered.

Moreover, while it has indirectly maintained a more or less permanent state of society, it has, as Lord Curzon eloquently said a year or two ago, produced generations of the finest handicraftsmen and warriors, as well as other persons no less

perfectly fitted for special duties. We are apt to forget that, to some extent, the caste system has been operative in England, though latterly the barriers have been broken down, in some places at least. Sir James Crichton Browne last year reminded us of the transmission of special aptitudes amongst the operatives of Sheffield, and similar observations might be multiplied.

But caste, if it eliminates practical unfitness, penalises the occurrence of advantageous variation, and thereby impedes moral and intellectual progress. All elasticity disappears, and, as history shows us, even its apparent success is largely due to infringement of its laws; as where in Hindustan the amours of a ruler have mingled the blood of princes with that of dancing girls, and in China a system of competitive examination has thrown open a career to almost the humblest student.

Other forces and agencies have, however, been at work in England for generations. Sheer competition has in some measure been in the past a selective agency working for good amongst us; and our sturdy individualism has modified, in the direction of favouring advantageous variation, a system that tends to the suppression of what may to some seem undesirable, because unusual.

We now live, however, in a time of flux; and it is at least not improbable that the sum of mental misery and disease runs some risk of increase from our persistent attempts to ignore the fact that, if heredity be a force working for or against posterity, it is none the less a factor that accounts for the weaknesses, capacities, and special aptitudes of the men and women of to-day.

Nevertheless, when we consider the individual as parent—as one, that is, whose varying physiological modalities are correlated with qualitative variations in the germ-cells segregated within his body—we are at once confronted with stupendous possibilities for good and for evil; although if we are, as practical persons, to make use of these, to the end that the insanities be prevented, we must admit that limitations are imposed on such possibilities.

That there are those in whom the vitiated germ-plasm is not “improvable,” whose capacity for favourable response to stimulus has been exhausted, or perhaps was never marked, it is impossible to controvert. Therefore, as has been already said, it is right and proper that for these opportunity for the act of reproduction must be denied. Yet, at the same time

that we recognise the duty of the State to deny, by segregation, opportunity for the perpetuation of what is unimprovable, we must recognise the duty of all to participate in the careful protection of those whom we find it necessary to set apart.

The value of segregation is not belittled if it is said that such measures do not positively improve the race; they can but lessen certain tendencies to deterioration.

Segregation is that alternative to the ruthless elimination of the unfit, under the cosmic process of natural selection, which is suggested to us by those ethical impulses, leading to the practice of active altruism, in which modern thinkers recognise a contributory factor to the "orthogenic" progress of the race: and the obvious contentment that is found to exist amongst those already segregated is most encouraging.

Furthermore, I think that scientific investigation will, in the not remote future, justify our belief that there are persons leading active and useful lives, who yet, by reason of some acquired physiological modality, should, in the interests of the race, abstain from marriage.

It is true that the factors involved are exceedingly complex; and dogmatism is but a blind guide. Certainly, fine intellects have been given to the world under conditions that many would, on *a priori* grounds, think deplorable; and there may be fear lest appeals for abstention from marriage may be responded to more readily by those whose unselfishness would make them worthy parents, than by those less fitted for responsibility.

Research will, we hope, aid in defining for us the circumstances in which the avoidance of marriage is to be counselled; and if for the moment it is not always easy to assert that this strain should be terminated, or that one maintained, we can at least be sure that, if in some cases the germ-plasm is improvable, there are others of which the contrary may emphatically be said.

If it is not easy for us to distinguish, at present at any rate, between those agencies and conditions that are beneficial or injurious to the individual himself and to himself alone, and those whose resultant effects are in some degree sustained by his offspring, still there can be no doubt that the physiological care of the individual should commence, not merely at birth, but from the moment that the two elements fuse: for it is from

then that personal existence really begins. And we must remember, too, at how early a date in the unborn child is already segregated, in his undeveloped body, those germ-cells that are destined to recount, in due course, the story of ontogenetic and phylogenetic progress.

Accordingly, amongst the social movements of to-day that we must reckon helpful in the accomplishment of our purpose, there is one, ardently urged in some quarters, and in principle already accepted by the Legislature: that in favour of the endowment of motherhood. Ways and means have not yet been fully elaborated, but they are without doubt right who recognise the burden on women of this duty of motherhood, and who find, in care for the expectant mother, not merely an opportunity for beneficent interference, but occasion for the acknowledgment of an obligation that, with increase in the complexity of modern life, is increasingly incumbent on the nation.

During the later life of the child we may concern ourselves in the first place with the amelioration, or regulation, of the material environment; and here certain considerations at once arise.

Biology, I submit, no less than every-day observation, teaches us that the mere submission to the provision of material comforts is of questionable physical advantage, and of undoubted moral drawback, to the recipient; it can hardly be supposed that conditions which for the parent are of such dubious advantage can for the offspring be propitious.

The difficulty is not entirely removed if the participation in material benefits is conditioned by acquiescence in any disciplinary code. The mere regimentation of human beings in conventionally standardised surroundings, as seems to be the aim of some social reorganisers, although provocative of a certain type of physical fitness, does not, and never will, promote either mental or moral growth; it is certainly conducive to neuropathy.

When the prophylaxis of the psychoses is in question, it is necessary to insist on the cultivation of mental life and expansion; on the creation of a mental atmosphere no less above suspicion than the physical; on pure food for the mind as well as for the body.

That there are groups of social workers who are as convinced of this, as are others of the need for adequate food and housing,

I am well aware; but there is nevertheless a remarkable tendency to forget the value of some influences and agencies, once at any rate not lightly esteemed.

If a commonplace illustration be made use of, we do not seek to prevent dyspepsia by feeding our children on peptones and on converted sugars that provoke no responsive effort from the alimentary mucosa, or else we find that we have attempted a vain thing. The application of the lesson is not very recondite, and the key to the successful prosecution of prophylaxis lies in the education of the power for purposive response to the acme of individual capacity—a task that, in the sphere of mind, involves the summoning to occasion of the whole power for personal effort.

We place, I think, no strained interpretation upon education in saying that, from the very commencement of personal existence, its purpose is truly that of prophylaxis against physical and mental incapacity.

In this century there is, perhaps, little danger that the formative influence of education will be underrated, but it is unfortunately with strange confusion of tongues that the prophets speak unto us.

There is less eagerness than could be wished to develop, by the application of stimulus, that formation of useful character that Locke rated more highly than the acquisition of mere information; and it has been hinted that it is by reason of conscious or unconscious adhesion in this respect to the teachings of that philosopher, that so many great Scotsmen have issued from humble schools whose curriculum and appurtenances would be deemed woefully defective by those who approve of the present educational system of our metropolis.

It cannot be doubted that, whilst less attention is now paid to the inculcation of ideas of discipline and subordination, it has been forgotten, in the wholesome desire that learning should be pleasant, that to be educated requires the putting forward of effort by the pupil.

Though it is true that pleasure may well be an advantageous concomitant of instruction, and when effort is entirely repugnant the capacity for profitable response is verging on exhaustion, yet without purposive effort there is no accomplishment.

As well attempt to impel the arrow without bending the bow as to educate profitably any child without eliciting the appropriate reactive response to the stimulus presented.

If the due response be not forthcoming, either the stimulus is too great, or it is inappropriate to the texture of the material ; hence the choice of stimulus is of paramount importance if early breakdown is to be avoided.

In mental, as in bacteriological prophylaxis, the production of a negative phase is to be as sincerely deprecated as is the failure to provoke courageously the greatest possible intensity of favourable reaction , and perhaps to-day, in our desire not to press too hardly on the feeble, we fail sometimes to educe the full output of others with greater potentialities.

In respect of qualitative suitability, it is interesting to note that Dr. Gray, formerly of Bradfield, has recently advocated more general recognition in our schools of the scientific connection between hand and mind, insisting on the observed fact that properly organised manual training exercises in many cases a surprisingly beneficial reaction on book-learning. "Many a boy has not only found his *métier* in the employment of his energies and abilities in the Engineering shops, but has shaken off the despair which had previously attended his efforts in the class-room, and has made respectable progress in those very linguistic and literary studies which he had previously abhorred and evaded."

I am not unmindful that some of those who have devoted their lives to the investigation of processes of thought by modern methods hold that we can only learn particular activities ; that "no one learns one thing by doing another" ; or, in Kantian phraseology, that the spread of form occurs only if a resemblance exists between the activities, is of very limited extent, and of little real value. This conception is opposed to what is designated book-learning, and encourages us to desire with Dr. Gray that scholastic education should involve due balance between formal and objective teaching ; and at the same time we should insist, as did Sir James Crichton Browne, in his addresses at Sheffield and Berlin last year, that all conditions of the environment are educative in the true sense of the word. We know to what extent ordered instruction in handicrafts has been found advantageous in our institutions for the mentally deficient ; and lately in the United States remarkable results have been achieved by the calling out, in those whose activities have been limited by an attack of mental disorder, such measure of response as still remains to processes of re-education.

Similarly the re-education of the ambulatory powers of tabetics and of the acoustic faculties of those deaf is pursued with enthusiasm and success. If there be curative value in the acquisition, by those mentally deficient, of aptitudes in the handicrafts and what not, must we not agree that recognition of the link between hand and mind during the course of education will be of high value in increasing the capacity of the normal child?

The fact that the influences which, in education, we bring to bear on the growing organism, may be prejudicial, for good or for evil, to the unborn progeny, demands our earnest attention; and it is probable that the extreme solicitude with which we shelter individuals against present personal injuries, such, for example, as those of which no direct effects are transmissible, may yet, by failing to evoke the hardiness and self-reliance that result from danger successfully overcome, be not without effect in tending to weaken the moral fibre of coming generations. It is likely, I think, that the price for freedom of the rising generation from all personal discomfort or difficulty will be paid, in future years, by the race.

Again, when seeking to induce favourable reaction on the part of the individual, there must be reference to defined purpose, and not to some arbitrary or fancied standard of desirable attainment.

If a part, and, as I think, no small part of our duty to others be to assist in the adjustment of inner to outer relations, we may at least, so far as is in us, strive to assist in the shaping of the pegs to fitting design, and not to some fantastic pattern that has no relation to utility.

Although the skilled husbandman may modify the soil if the cultivation of some special plant be desired, yet, for ordinary purposes of economy, he chooses that seed which, given a certain soil, produces the best growth.

Disease and distress are too often merely expressions of dysharmonic adjustment between inner and outer relations—between effort and result—between design and purpose. Let us not then try to grow peaches on the hill-top, or to spoil fine peasants that we may have inefficient clerks.

The writer who, in *Blackwood's Magazine*, combines, month by month, a fine philosophy with urbane humour, has recently declared that to his mind the wisest of the country side are

often those who can neither read nor write! The observation may be variously judged, but in part it may be held to mean that here, though perhaps less frequently than formerly, we may observe the happy establishment of adjustment between material and purpose.

Should we not learn, moreover, in choosing human material for special purposes, to be guided not only by its apparent texture, but by our knowledge of its derivation?

The time is doubtless coming when educative processes will be guided by nicer discrimination than we have hitherto attempted, and the expert may then find that he is called upon to play, in the adjustment of the organism to the environment, a part of no small importance in the prophylaxis of mental breakdown.

Recent legislation has given us the sketch-plan of a mechanism which, in combination with the means already existing for the selection, on grounds of physical fitness, of the workman for a job, shows us how progress in this adjustment of means to ends may be secured; and Murri, in the address to which I have already alluded, has made the valuable suggestion that some examination of workmen should be made, in order that the liability or predisposition to that traumatic neurasthenia which he finds so rapidly increasing in industrial communities, should be at least approximately estimated.

Would it not be of the greatest practical value if some appraisement could be attempted of the general liability for members of the community to break down, in given circumstances?

That such a numbering of the people could ever be brought about may seem to some but a visionary proposition; yet perhaps it is not so very far from realisation.

We are now caring for the child: weighing, measuring, examining, testing and classifying him; shall we forget the adult?

He is something more than one out of twenty millions: he is not merely the vehicle for the transmission of so many pre-determined and unalterable unit-characters; not merely the progenitor of a remote posterity; but the parent of those who in the not far distant years, will display and testify, unto the third and the fourth generation, what manner of man it was that, in our time, gave them nurture in his body.

If so far I have not alluded to those methods of care for



the individual requiring the exercise of technical and special accomplishment, that have been so wisely and temperately advocated by this Association, believe me, it is not because I fail to appreciate their important position in any ordered scheme for prophylaxis, or because I deem them subsidiary to methods based on more general propositions: it is because your knowledge of their application and your appreciation of their influence are not less than mine.

It is obvious that when, during any formal consideration of general policies, the individual needs of our patients call for attention, cardinal importance must be attached to the maintenance and extension of those clinics from which we confidently expect so much. In these centres the highest expert ability is rendered available, not merely in the actual task of averting the imminently threatened breakdown, but in that of procuring, precociously as it is said, that adjustment of material to purpose on which so much stress must be laid. Here, too, may the sympathies of the practitioner be enlisted; here may his experienced abilities be invoked; and here may he be afforded opportunity for receiving special instruction and, at the same time, of reciprocally assisting and influencing those of us whose fields of labour are naturally more restricted than are his.

The part to be played by hospitals of the order, so long, so insistently, and so generously supported by Dr. Maudsley, and so carefully defined by our Treasurer in his recent and weighty communication to the *British Medical Journal*, needs little commendation from me. We all participate in a lively sense of their utility and importance, not merely as receiving stations for those acutely ill, but as foci for co-ordinated investigation, devoted more particularly than the clinics to those whose condition is of grave and urgent necessity.

Great, however, as undoubtedly may be the advantage that will accrue from such institutions, it is, and always must be, indispensable that others, of existing type, should sustain their high function of promoting the recovery of those whose illness is less readily amenable to immediate treatment, and of providing skilled and tender care for those who are compelled to lead sheltered lives.

The specific value of after-care is also ever present to our minds; and we are looking forward with confidence to

an extension of the work done in this field of beneficent endeavour.

The co-ordination and systematisation of the special agencies, in the form of centres for research, psychiatric clinics and hospitals of different aim and purpose, together with that of the After-care Association, are no less worthy of recognition and furtherance by the State than is the marshalling of the laboratory, the dispensary, the hospital, the sanatorium and the convalescent home or colony, in the crusade against tuberculosis ; and we have lately been much encouraged by the knowledge that the interest of our statesmen has been aroused in the scientific work which is being done by our medical officers.

Ladies and gentlemen : I am conscious that I have not laid before you anything that is positively new. I trust, however that I have indicated that man's life should be filled with hopeful purpose ; that belief in the transmission of certain acquired characters throws open to us a vista of possibilities, and requires from us the admission of imperative responsibility ; and that, in attempting to accomplish the better prevention of the insanities we must indulge in no sanguine hopes of finding some simple formula for social regeneration, some legislative panacea for the mental ills of mankind, or some master-key that may unlock the many portals that guard the mysteries of life, death, and disease.

No : our task is to pursue, without haste, and yet without rest, the complete investigation of the many factors involved ; and to consider how best, with avoidance of mischievous interference, we may promote the harmonious correlation of the multitudinous forces that are at play and interplay around us.

A task for giants if you will : yet one that must be faced. However, even in the dull performance of elementary duties, we are participating in the co-ordination of the agencies that are carrying forward the race, whose better security from failure lies, I am confident, in pressing forward with directed effort towards the accomplishment of the purpose set before us.

If, in the desire to frame some attractive scheme of glittering merit, we are ever tempted to forget the present sufferer from mental disability, and his pathetic needs, we should be reminded that for him also the greatest hope of restoration lies in our

inculcation, so far as we have the dynamic force, and he the capacity for response, of the necessity for personal effort.

And, where there is little or no hope that we may evoke such helpful response, in devoted care of the straggler from our ranks, there is a duty, not lightly to be evaded, which, if accomplished, will bring with it a rich burthen of racial reward, but, if neglected, will entail an inevitable Nemesis.

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*Traumatic Neurasthenia.* By H. CAMPBELL THOMSON, M.D., F.R.C.P., Physician to the Department for Nervous Diseases, Middlesex Hospital, and to the Hospital for Epilepsy and Paralysis, Maida Vale.

IN spite of attempts at classification, most observers will agree that the disease known as neurasthenia has no definite boundary line. However strict an attempt is made to define its limitations, everyone who has to do with these cases must admit that the symptoms frequently merge into those associated with other conditions, such as those known as psychasthenia, melancholia, hypochondriasis, anxiety neuroses, obsessions and others. Even hysteria in its less pronounced forms is not always easy to separate from neurasthenia, and in not a few instances some of the salient features of both diseases may be present at the same time, and that this close association is recognised is shown by arguments that have occasionally been put forward for placing the disease known as traumatic neurasthenia into the category of traumatic hysteria. All classification is artificial and provisional, but useful and necessary as it is for studying the general group aspects of disease, there is the danger of over-estimating its importance, and of being tempted to feel the necessity of labelling a disease and then treating it according to such rules as are applicable to the label which has been placed upon it.

One has always to remember that disease is modified by the individuality of the person in whom it exists, and nowhere is the influence of individuality of more importance than in diseases complicated by mental disturbance—a fact which has been especially emphasised by some of the more recent psychological

work. It is the individuality of every case that must be worked out regardless of the particular name given to it.

In any case, whether one considers it desirable or not, it is quite obvious that the term "neurasthenia" is coming to be used in a more general sense to cover many of the psycho-neuroses of lesser degree, and when writers of repute agree in saying that neurasthenia may be caused by such different conditions as septic absorption, arterio-sclerosis, pulmonary tuberculosis, carcinoma, intestinal intoxication, diabetes, and organic nervous diseases, it is clear that the term must be used in a wide sense, since it is impossible to imagine the symptoms from such different causes corresponding to one another in anything more than a general way.

The first point, then, I wish to emphasise is that the term "neurasthenia" is becoming used as a group designation. In dealing with traumatic neurasthenia, I have for some time advocated its use in that sense (<sup>1</sup>), and have referred to the difficulty which one meets with in medico-legal cases, where one witness may use the term in a restricted sense, and maintain, for instance, that a patient is suffering from hypochondriasis, while another will be equally certain that the case is one of traumatic neurasthenia. I have therefore suggested that the position would be clearer for all parties if they could start on common ground, by saying that a patient is suffering from traumatic neurosis or neurasthenia, using the term in its wide sense, and then proceed to bring forward evidence to show on what particular lines the somatic and mental symptoms have developed.

The term "traumatic neurosis" or "neurasthenia," then, I understand to indicate a group of functional nervous and mental symptoms that may occur as the result of a shock to the mind in connection with an accident, and I wish to emphasise the fact that it is the trauma of the mind that is the essential factor of the neurosis, for in some of the worst cases of nerve disturbance the physical injury to the body has been either absent or of such slight degree as to warrant it being disregarded.

It is the emotion, especially that connected with fear, that gives rise to the nervous disturbance, and in this respect the cause is identical with that of other cases of neurasthenia which have arisen after an emotional disturbance, and beyond the

frequent complication of definite somatic injuries, especially those of the head, there is not, I consider, any essential difference between the neurasthenia produced by the mental shock of an accident and that produced by the mental shocks in other experiences of life.

In order better to understand the severer symptoms, it is well to take the more simple cases that are met with in every-day life, *e.g.*, where mental shocks occur as the result of some unpleasant news.

In such instances the rhythmical actions of the essential organs of life are disturbed, and palpitation, dryness of the mouth and distaste for food are among the more immediate symptoms which everyone must have experienced at some time or other. In some circumstances a person may faint from hearing bad news, which is a psychical effect somewhat comparable to the concussion produced by a physical blow.

The symptoms of great fright are too well known to need detailed description. The eyes become prominent, the heart beats violently, the skin grows cold and sweat breaks out. The whole body trembles, and in extreme cases the hair may stand on end, while the after-effects are characterised by prostration. All these signs show the intensity of the nervous disturbance that takes place, and one can easily understand how, in some instances, the effects may be lasting, and how in others the symptoms may arise without necessarily having been preceded by the classical symptoms of the acute stage. It is indisputable, therefore, that the mechanism of the mind and body is liable to be disturbed by the reception of sights, sounds or ideas which are outside the scope of those usually received. Probably the circumstances in which the shock occurs are often more important than the nature of the shock, for whether the mind is prepared or not makes a great difference—a fact of common knowledge, as shown in the efforts that are generally made to break bad news gently.

Moreover, the amount of fright or shock is often disproportionate to the degree of danger experienced. In some circumstances an intense shock occurs where the danger to life and limbs has been slight, while in others again, the narrowest escape from death produces little or no shock.

The latent period which frequently occurs between the time of the shock and the onset of symptoms is easily explained by

the energy of the mind being kept up by the excitement, and then failing after all energy is exhausted.

The occurrence of a latent period, however, sometimes becomes a matter of legal importance, and it is a subject which I think requires some consideration, and on which I should like to have your views.

While every case must be judged on its own merits, I have, from careful observation, formed a general opinion that the latent period in a genuine case of traumatic neurasthenia does not usually cover a longer time than, say, a few days or a week or two. It frequently happens in the hearing of legal cases that the symptoms relied upon have begun some months after the original accident. As might be expected, a man who has been out of work some time, and who has genuine doubts as to whether he is fit to go back, is very likely to become worried by the repeated medical examinations, the cessation of his compensation, and the subsequent suspense as to the results of litigation, and it is not unlikely he will be neurasthenic in the general sense of the term, but it is difficult to see how, in such a case, the nervous symptoms can be attributed to the accident. Moreover, so far as I have been able to observe, it is this particular class of case in which recovery rapidly takes place after the litigation is over, which is what one would expect; but the general statement that is sometimes indiscriminately made by medical witnesses that cases always recover when their litigation is over is, I am quite convinced, not true.

It may be quite fair to say that a man will be likely to improve, since it is obvious that the worries of litigation must tend to make anyone worse, but I have no hesitation in saying that some of the longest standing traumatic neuroses that I have seen have been in men who have been generously provided for, and for whom there was no anxiety as to the future. I think the time of onset of the first symptoms is a matter well worth studying as an aid towards establishing the justice or otherwise of a claim.

The principal bodily symptoms occurring through an emotion such as we have been considering to-day appear to be produced through the agency of the sympathetic system.

The voluntary system is disordered also, but largely on the mental side in the direction of difficulties of concentrating the attention, of orderly association of ideas, or further, through

the development of distinctly abnormal views, but it is through the unstripped muscular system that the somatic changes mainly occur, *e. g.* palpitation, sweating, diarrhœa, polyuria, loss of appetite, and general digestive disturbances.

The sympathetic system consists of two main divisions:

(1) The vertebral sympathetic, which comprises the well-known chain of ganglia, situated alongside the spinal column, and (2) the autonomic system of Langley<sup>(2)</sup> which arises in three areas, which are situated in the mid-brain, the bulb and the sacral region. The distribution of the efferent fibres of these two systems is mainly to unstripped muscle-fibres, *viz.*, of vessels, glands, skin and viscera. It will be seen that most of the structures thus receive a double nerve supply—one from the sympathetic proper, and one from the autonomic system—and there is some reason to think that the results of the two supplies tend to be antagonistic to one another. This, however, is a matter which need not now be considered.

The pyramidal system is unaffected except through the mind, and, beyond some exaggeration in tendon reflexes, nothing of note is likely to be found. The ingoing peripheral system is likewise unaffected, and the absence, therefore, of Romberg's test, which is often made so much of in medico-legal cases, proves nothing so far as neurasthenia is concerned, since one would not expect in any case to find it in an uncomplicated case.

Giddiness, of course, is often complained of, and when present is due to vasomotor disturbances, and should not be confused with ataxy, such as can be demonstrated by Romberg's test.

It is an entirely different matter and is brought about by lack of control of the vasomotor system, which lack of control is especially liable to be demonstrated on changes of position.

It is very desirable, if possible, to demonstrate the condition of the vasomotor system by graphic records of pulse-tracings and pressure curves taken under different conditions, so that we may have more scientific evidence to deal with than the rough and ready statement of the patient that he is giddy when he laces up his boots, and the doctor's denial that this can be possible because the man stooped down while dressing to search for his collar-stud on the floor without any apparent distress. Other complaints likewise, such as want of concentrating

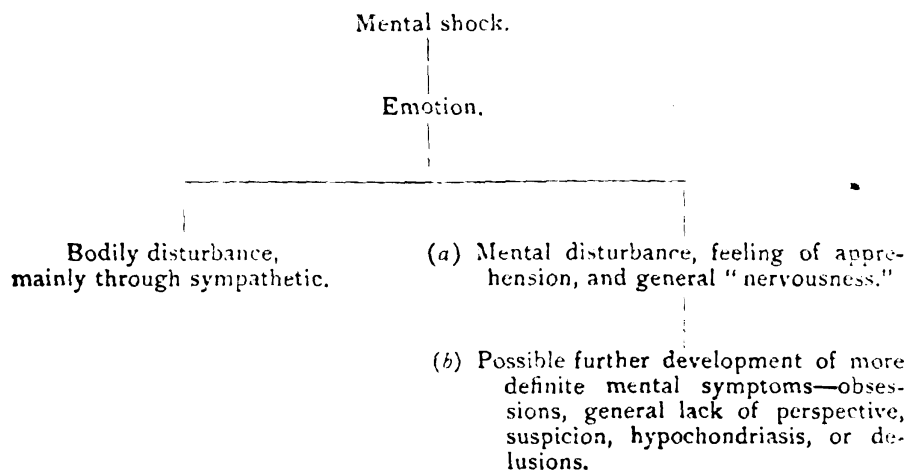
power, loss of memory, and so forth, must be tested and recorded in a scientific manner.

In fact the examination of the neurasthenic patient, both for diagnostic and prognostic purposes, requires systematic elaboration, and should be proceeded with in two different directions, *viz.*, mental and bodily.

The various functions of the mind should be tested and recorded in a manner similar to that carried out in many institutions for mental disorder, while those of the body should be carefully observed and recorded in a similar manner, regard being especially paid to vascular variations, as shown by pulse and blood-pressure tracings.

I am at present investigating cases on these lines, and by them I believe that both the diagnosis and the course the disease is running will be more clearly defined.

The accompanying diagram indicates the lines of development of traumatic neurasthenia as I have endeavoured to put them before you.



We cannot expect to establish the existence of a morbid anatomical condition in neurasthenia, whether of traumatic or other origin, for any changes that occur are not of such a nature as can be identified, and, moreover, the uncomplicated cases under consideration happily do not end in death. While, therefore, we must continue to regard neurasthenia as a functional disorder, it is, nevertheless, highly desirable to try to form some idea of the changes that take place, and of the paths along which the impulses that give rise to the morbid symptoms travel.

An anatomical conception of the disease would not only make



it more clear how symptoms are produced, but would also give some indication of the directions along which search should be made for objective signs of bodily disorder thus brought about, and might help to bridge over the unsatisfactory space which now exists between the subjective complaints of the patient and the absence of all objective symptoms as observed by the medical man.

Henry Head and Gordon Holmes (<sup>3</sup>) have shown that the functions of the optic thalamus are intimately related to the emotions. They state that in lesions of one thalamus, not only do the two halves of the body respond differently to affective stimuli, but that states of emotion may evoke different manifestations on the two sides, and among other instances, music is mentioned as being liable to evoke a different reaction on each half of the body.

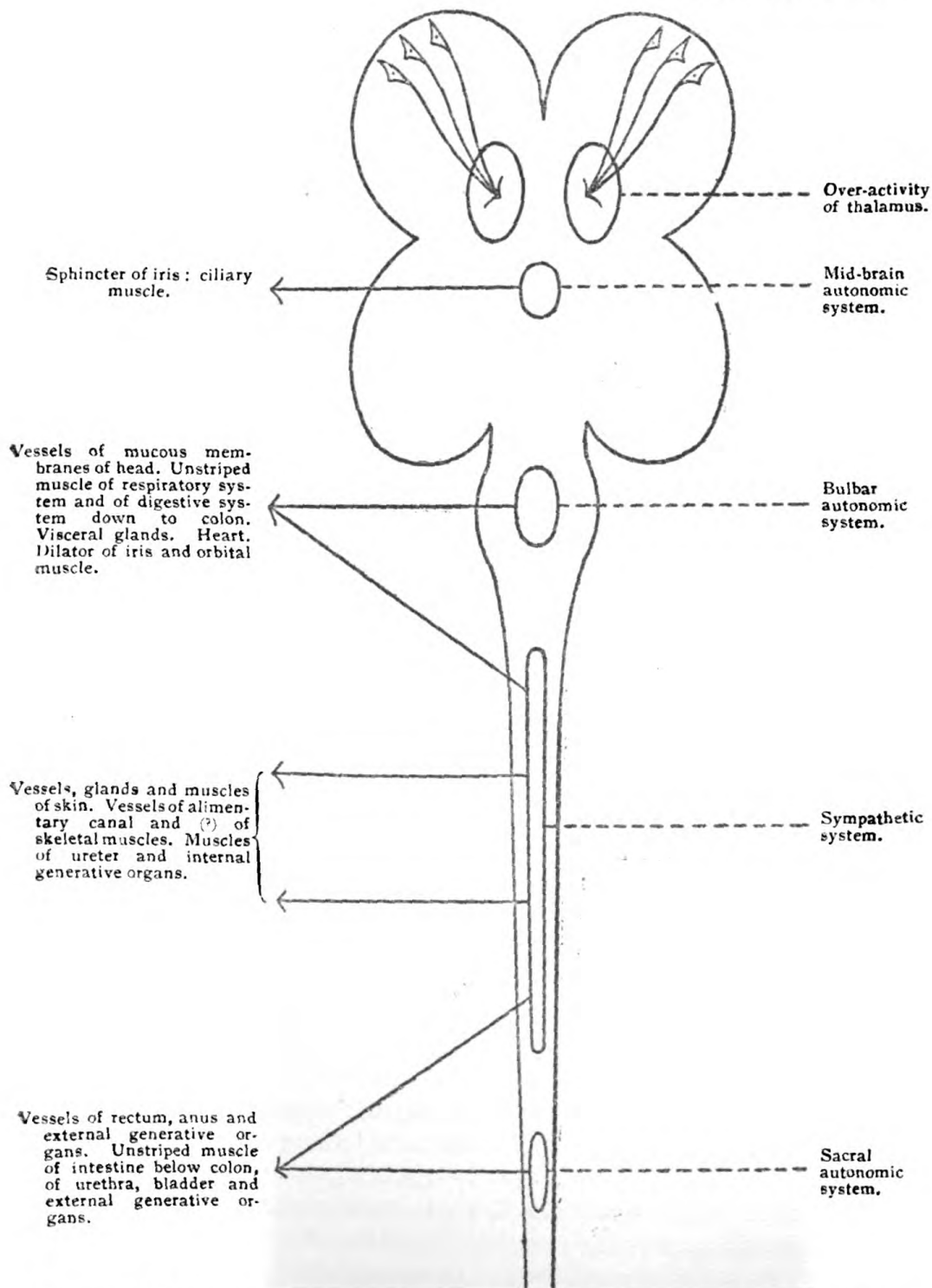
The view of these authorities is that the cortex normally controls the activity of the thalamic centre by means of paths which pass from the cortex to the lateral zone of the thalamus, and when this control is taken off by organic disease the over-activity of the thalamus comes into evidence.

There is evidence that I have already put before you that many of the final results are brought about through the sympathetic system, so that I think one may fairly suggest that the first result of a mental shock is to inhibit the action of cortical cells and thereby remove control over the thalamic centres. Emotional disturbances, being devoid of full cortical control, will produce excessive effects, which effects will be mainly produced through the sympathetic system.

In this connection it is interesting to note that Crile, in his recently published article on "The Kinetic Theory of Shock" (<sup>4</sup>), states that in his view "the essential lesions of shock are in the brain-cells, and are caused by the conversion of potential energy in the brain-cells into kinetic energy at the expense of certain chemical compounds stored in the cells." He further considers that "stimulation of the distance ceptors (special senses) is as potent as stimulation of the contact ceptors in producing a discharge of energy"; and finally he brings forwards clinical and experimental evidence to show that shock can be caused by fear alone.

I would therefore sum up these suggestions by means of the accompanying diagram.

Weakness of cortical control.



Diagrammatic representation of suggested combination of cortex, thalamus and sympathetic system in the production of symptoms of neurasthenia from mental shock.

I would also point out that acceptance of this theory would seem to carry with it an adequate explanation of the manifold ways in which neurasthenia can be produced. When the cortical control is congenitally weak we have examples of the person who is continually more or less neurasthenic in all the ordinary circumstances of life. In the person of average mental stability there may be a temporary weakness of cortical control as the effect of overwork, strain or worry, which soon disappears as the result of a holiday, and between these two extremes there may be symptoms of different intensity and duration, according to the stability of the individual and the troubles that assail him. Then there is the large group of cases where neurasthenia is for a time the principal symptom of some general bodily disease, such as one of those already enumerated at the beginning of the paper. In these the symptoms are produced through the disease lowering the general nutrition and so the stability of the nervous system, or it may be in some cases directly through the sympathetic system, more especially in cases of disorder of the ductless glands, with which the sympathetic is thought to be closely connected.

If we are correct in assuming that the essential causes of traumatic neurasthenia are lack of cortical control, together with an alteration in nutrition of cortical cells, and that these changes have been caused by emotional states of mind, then the methods of treatment that should be followed are those that tend to protect the individual against further emotional disturbance, and which also tend to improve the general nutrition. These two principles are complied with by change of surroundings, regulation of mental and bodily exercise, with plenty of good food and air. If these principles are accepted, the stringency with which they are applied must depend upon the requirements of the particular case, for which the possibilities range between such extremes as taking a holiday and undergoing a "rest cure."

In the cases where strict treatment is required, the isolation, separation from friends, and absence of letter-writing is usually a preliminary necessity, for by this means all the outside influences which would be likely to cause association of ideas that would keep up the excessive emotion are cut off. In very many cases this is sufficient to restore the mental balance, but if, on the top of this "neurasthenic state," there is a definite

growth of morbid ideas, these may be dealt with by such mental methods as those of "persuasion," "suggestion," or "psycho-analysis," or a combination of these according to the physician's judgment.

As soon as the nervous system appears to have recovered its stability the patient should be allowed up and encouraged to begin physical and mental exercises. The physical exercises are important in nearly all cases, and in the case of working men it is essential they shall, if possible, be sent out of hospital in such a fit condition of health as to enable them to begin by doing a fair day's work.

It is practically a physical impossibility for any working man to go straight back to full work when his muscles have got soft and flabby, and nothing can be more discouraging to a man than to go through a course of treatment, and then find himself better mentally, but physically still too feeble to earn a living. Unable to do heavy work, and unable to find light work, he becomes discouraged, depressed, and probably rapidly relapses into a condition of hypochondriasis. Therefore, whenever possible, every effort should be made to send him out fit both in mind and body.

There are points concerning prognosis that I should have liked to put before you, but time does not permit, and I will therefore content myself with saying that, while the earlier the cases are treated, the better is the chance, yet one need never despair, since in several instances men have returned to work after being on the compensation list for a very long time.

In conclusion, I will give the results of a consecutive series of sixty-two cases of neurasthenia which have been placed under my care at the Maida Vale Hospital for Nervous Diseases. They are unpicked cases, and comprise all kinds of occupations, such as sailors, firemen, tram-drivers, teachers, water-board men, etc. The value of this series lies largely in the fact that, through the courtesy of Sir John Collie, I have been able to obtain particulars of the patients' histories after completing treatment, for without such knowledge statistics of this kind are apt to be very misleading.

Of this series of sixty-two, one, in addition to other troubles, was found to be suffering from malignant disease, and another had organic disease of the cord, so that there are sixty cases of apparently uncomplicated neurosis. These included patients

of both sexes. Some of them were cases of traumatic neurasthenia, in others trauma was not a causative factor, but the same principles of treatment were applied to all. Of these sixty cases, thirty-nine ultimately resumed work, nine are classed as permanently disabled, three developed mental disorder of a definite type which was sufficiently severe to prevent resumption of work, and the records of the remaining nine are somewhat uncertain, though there is reason to think that some of them, at any rate, were eventually able to work.

(1) "Traumatic Neurasthenia," *Clinical Journal*, June 12th, 1912.—(2) "The Autonomic Nervous System," *Brain*, vol. xxvi.—(3) *Brain*, vol. xxxiv, 1911.—(4) *Lancet*, July 5th, 1913.

#### DISCUSSION,

At the Annual Meeting in London, July 16th, 1913.

SIR GEORGE SAVAGE said he always approached the subject of neurasthenia with doubt. He had watched waves of feeling during the last forty years. At one time, almost fifty years ago, nearly everything was considered to be hysteria. Later, everything was described as hypochondriasis; and now a great deal of the illness one saw was ascribed to neurasthenia. He was obliged to admit that there were careful discriminations and differences now detected which were not formerly appreciated. He thought it probable that neurasthenia, as a group of symptoms, scarcely existed fifty years ago, and that it was associated with the increasing difficulties of environment. At all events, one was constantly being brought into contact with cases which were not hysteria, which were not hypochondriasis, and yet which were functional disorders. These traumatic cases which the paper dealt with, resulting from either physical shock or from mental shock, had interested him for a long time. He referred to a paper by his friend, the late Mr. Clinton Dent, in which was pointed out the important fact that injury might produce anomalous symptoms. He did not think Mr. Dent made use in that connection of the term neurasthenia, but he described groups of symptoms of great interest as occurring in members of the police force consequent on injuries, and these occurred in cases in which the characters of the men were thoroughly well known; they were not men likely to malingering, and they were men who would have no interest in making the worst of their symptoms. Mr. Dent found that a policeman knocked on the head when he was not in a state of excitement did not suffer much, but if there was a riot, or the man was greatly disturbed emotionally at the time he received a hard blow, it was a much more serious matter than a similar blow on the head in a time of emotional quietude. He had himself noticed the same thing, that if there was an injury to an organ which at the time was in active function, that organ seemed to suffer more than at other times. He had long recognised that there were many people who had received an injury to their head when they had been drunk, and they had suffered more severely from it, despite the proverb that the child and the drunken man might fall with impunity. The drunken man not infrequently, as a result of a comparatively small accident, suffered permanent brain damage. The interest of the "latent period" was very great, and he agreed with the author that it opened a vast field for fraud, e.g., the cases of so-called "railway spine," some of which were genuine, but many of which were developed long after one thought such a result could have followed the accident. That disturbance of the highest control gave rise to these emotional disorders and that these disorders should be displayed after traumatic injuries of this kind seemed to explain many of the symptoms of neurasthenia. It was very satisfactory to have Dr. Campbell Thomson's cases reviewed by that arch-investigator, Sir John Collie, for if malingering was detectable it would be detected by him. He had sometimes regarded a tendency to relapse as one of the characteristics of grave neurasthenia.

There were a number of cases of people with grave neurasthenia who appeared to get quite well. The emotional side of the disability had gone, and the higher self-control seemed to be present, but with very little strain, even with overwork, the person broke down. Therefore he agreed with Dr. Campbell Thomson that one should insist not only on improvement, but that if one was dealing with a genuine case of traumatic neurasthenia it was necessary that there should be very prolonged rest. He was sure that all present would learn much from this most instructive paper.

Dr. PASSMORE said he had no intention of speaking on the paper when he entered the room, but he found it so fascinating that he would like to say a few words. He thought the explanation of the pathology of neurasthenia would be found more in the realms of psychology than in the realms of clinical medicine. Any sudden shock caused our stream of consciousness, in a way, to stop; just as a river in its natural course was dammed up and the stream in consequence diverted, so it was with the mind. And if the obstruction were taken away at some future time the river seldom returned to its natural course. The phenomena which Dr. Campbell Thomson described, he, the speaker, considered that psychology alone could explain. It was a persistent condition, and those who had had experience in this connection of traumatic neurasthenia saw that some of these patients never recovered. He thought the explanation of that was, that consciousness, by which, in the natural course of our lives, we checked our ordinary actions, was never restored, and that the effect of the shock the man experienced remained persistent. Whether in the future some explanation would be found in damage to the brain-cells, or whether it was an altered chemical condition of the brain, it must remain for a future histologist to say, but he felt sure that the true explanation was one of psychology.

Dr. ROBERT JONES desired to ask Dr. Campbell Thomson what relationship he considered neurasthenia might bear to general paralysis of the insane. He had had experience of some cases which had come to Claybury with symptoms of general paralysis after they had had a definite latent period and apparently following some accident, not necessarily to the head. In one of these cases, a man had fallen down the hold of a ship. For a time there were very few symptoms (apart from surgical wounds) beyond the immediate shock, but later he became totally blind, and developed symptoms suggestive of general paralysis for which he was admitted to the asylum. The Shipping Federation were now considering the case from the standpoint of permanent compensation to the man and provision for the wife and family. He was much interested in Sir George Savage's remarks concerning the later period raised in addition by the author, and which his own experience further confirmed of neurasthenia, also in regard to general paralysis coming on in members of the London Police force after serious struggles. He, the speaker, had been accustomed to regard neurasthenia as more or less of hysterical origin, but he now conceded after longer experience that it was a definite organic entity with definite symptoms sometimes terminating in definite insanity and associated with general paralysis. Dr. Campbell Thomson's description of these cases had interested him much, but he was somewhat exercised in his mind as to when the emotional storm referred to actually began. It was described by Dr. Thomson as the initiating factor. His own view was that the emotional element was secondary to the physical shock. After the physical or bodily shock, emotion irradiated and flushed the whole cerebral cortex; and further secondary physical symptoms sometimes ensued and these again created an affective tone which irradiated further. In the neurasthenic cases which had eventually come into the asylum, the difficulty had been the delay to translate the stimuli from without which came into the cortex (and were fully apprehended without trouble) into the consequent and resulting muscular action. He suggested that the dissociation might be a cortical one and in the synapse between afferent and efferent neurones rather than, as Dr. Thomson suggested, in the optic thalamus itself, which was deeper and more protected than the cortex. The optic thalamus was probably the first receiving centre of all sensory stimuli, and it was the first station at which incoming stimuli were received. They moved thence by means of the intercalary neurons into the granular area, or the small stellate cells area, which cells contained very little cytoplasm but much nucleus, and from these they passed into the pyramids. There was a neuro-fibrillar anastomosis or connection

between the stellate cells and the pyramids, and the pathological explanation of neurasthenia seemed to him (Dr. Jones) to lie in the synapses of these neuro-dendrons. He saw only extreme cases in the asylum, but Dr. Thomson would necessarily meet them earlier. He dissociated himself from the opinions expressed by Dr. Pasmore; one had to do here with physical conditions, as for every mental manifestation there was a definite material underlying condition. He looked for little help therefore from the pure psychologist, who was more concerned with an analysis of mental symptoms from introspection or from inferences drawn from the examination of his own mental state than from pathological or histological research, and, indeed, he gathered that Dr. Pasmore himself expected more definite results from histology in these cases.

Dr. MENZIES said he was sure all would feel much obliged to Dr. Campbell Thomson for the interesting realms of thought which he had opened up. It was most interesting to try and speculate a step further and to know how the cortical cells were affected. About twenty years ago a great vogue arose for operating on all cases of insanity which were supposed to have originated from trauma of the skull. People tried the effect of cutting out the brain scar, and the result was said to have been that the patients got better. The next stage was abstention from cutting out the scar, and in the next, the dura mater was not opened at all. Yet the cases still got better. He requested the local surgeons to try another step, namely, trephine another part of the brain altogether, not in the region of the alleged injury to the brain. And still the cases got better; wherever the hole was made in the skull the patient got better. On thinking over the matter he could not avoid the conclusion that the benefit accrued from changing of the skull from a rigid box into one which permitted of some elasticity. One case he saw was that of a patient who had lost his nerve for hunting. This case was a slight one, and of course operation was not considered, although the trend of pathology lay in this direction. At the other end of the line were probably cases which had fractured their skull and developed permanent insanity, and so had to reside in an asylum. In all there seemed to be one common cause, namely, disorganisation of the serum circulation within the skull. He suggested that the cause of the first affection of the cortical cells occurring, as Dr. Thomson suggested, before those of the thalamus, was an actual poisoning by the serum. The serum circulation became disordered first, and the cortical cells, being the most exposed, i.e., on the surface of the brain, were among the first to go: first at the base, as was seen in ordinary cases, and later, all over the cortex. The latent period certainly varied. He narrated a case at Cheddleton Asylum, in which the occipital bone had been fractured into eight or ten fragments twenty-three years before. The patient as a boy had fallen on to his back, and at thirty developed melancholia. Mr. Charles Ballance operated on him, and in eight months he recovered after three years' severe melancholia and refusal of food. As that operation was done eight years ago, and the man was still working, and could sometimes be seen riding a bicycle, the result had been most satisfactory—indeed, he regarded it as the most satisfactory case he had had consequent on operative interference. The address given by the late Mr. Clinton Dent, to which Sir George Savage referred, was at the Medical Society of London, and Mr. Ballance invited him, the speaker, to go and hear it. He believed that many of the cases which did not recover could be much benefited if surgical measures were resorted to. Naturally, it would be best to open the skull in an area which would be least susceptible to injury afterwards.

Dr. MACRAE asked how many of the cases dealt with by the author represented gross physical trauma, and in what proportion psychical trauma was the cause of the symptoms.

Dr. CARSWELL said he probably would not have intervened in the discussion of this paper but for the fact that at one time he was an unbeliever and a sceptic; he had now become a believer in the existence of nerve symptoms following upon physical injuries, symptoms of a real and substantial nature to the patient, but having little or no objective evidence for the eye of the physician. And probably he had the best of all reasons for his conversion, namely, that he had the misfortune to suffer from those symptoms after a somewhat serious injury. So far as he had grasped the course of the present discussion, there seemed to be an apprehension that the trauma referred to was a trauma directly applied to the nervous

system, *i.e.*, to the cord or to the brain. He was not aware that he personally had any injury to the cord or the brain, and he asked the meeting to excuse the personal note, which, after all, was the most direct kind of evidence. There was probably a slight injury to the lower part of the spine. But from his own experience he could absolutely confirm the very important point that, after the injury and after the emotional shock, there might be—as there certainly was in his case—an apparent disappearance of any evidence whatever of injury to the nervous system. About four months afterwards, when he was able to get about and do his work with at any rate some degree of comfort, he had a very distinct recurrence of undoubted symptoms referable to the central nervous system—he had very distinct spinal pain on effort, even very slight effort; there was also distinct pain referred to the back and to the vertex of the head, this being brought on even by the effort to write a letter. The most delicate indication of incapacity for co-ordinated intellectual action was the affection of the ability to compose an ordinary letter. To think out and compose an ordinary business letter became a difficult and painful process; words were omitted, and other words were badly spelled. Altogether there was a loss of that facility which a man displayed when writing an ordinary letter. To continue and write two or three letters at a sitting became absolutely impossible. These symptoms came on in his case very definitely four months after the injury, which was at a date after he had apparently recovered his nervous tone, and for this recurrence there seemed to have been no direct cause. And in the years which had intervened there had been occasional recurrences of similar symptoms, but less marked. He had therefore become a believer in the statements made by patients which formerly he had been sceptical about. He thought that probably the history of such a condition might be interesting, inasmuch as he had nothing to gain by suffering from neurasthenia. He had no morbid desire to see a physician, and he had no anxiety whatever to see a lawyer; he had none of the conditions which were usually set down as morbid proclivities belonging to certain people, or, in less charitable views, manifestations of malingering. He not only had nothing to ventilate, but his chief business was to keep all these things to himself and be able to answer the inquiries of his friends to the effect that he was quite well; because, apart from the pain, discomfort, and the inability to get well, the most distressful experience he had was the constant answering of the inquiries of his friends and looking cheerful meanwhile. Thus he was impelled to take the precisely opposite line of that adopted by the malingerer. Yet he could have no possible doubt that his symptoms were very real and solid ones, and no physical examination could reveal whether he was suffering from those symptoms or not. When it came to a question of injuries suddenly inflicted, involving emotional strain, or injuries affecting the central nervous system, such as a knock on the head or a fall from a height on to the back producing more grave disorders, such as general paralysis, then he thought there was great room for discussion. He considered that probably the right attitude to adopt was a sceptical one in such cases. But he felt some hesitation about adopting that attitude even with reference to alleged graver results, in so far as his personal experience led him to be a believer in the main in the statements made about themselves by patients as to the minor nervous effects following upon shock and injury.

Dr. CAMPBELL THOMSON, in reply, thanked members for the manner in which they had discussed the paper. He feared that he had brought forward his views crudely, but he had learned much from the opinions which had been expressed in the discussion. He did not feel that he could answer very fully the points which had been raised. The cases which he had recorded would probably include some to which the term "psychasthenia" could be applied; he found it difficult to distinguish the latter from neurasthenia; and, moreover, he had used the term "neurasthenia" in its wider sense. In dealing with the theoretical aspect, he had taken cases as far as he could as examples in which only the psychical trauma occurred, because he thought that as soon as there was a direct injury to the nervous system, such as a shaking-up of the spinal cord or concussion of the brain, there might be complications which would add to the difficulties of rightly comprehending the cases. Two of the worst cases he had ever seen, which had never recovered, were the result of a railway accident. Neither of them received any considerable physical injury—one was crushed on the leg, and the other on the



nose—both were well provided for, and yet month after month of treatment brought about no improvement. It was the horror of the whole accident which seemed to have been responsible for their illness. Although he had taken cases of this class as examples, there were a good many in the series in whom there was some physical injury as well. One speaker had asked him what was the percentage in the cases quoted in which there was gross injury. He had not worked that out, but he had with him a list of the cases with the injuries suffered, which he would be pleased to show to any of the members. With regard to the remark concerning poisoning of the cells, that was true, but that introduced another class of case, because neurasthenia arose from many causes, one of which was certainly toxic. But one could not very well attribute a toxic cause, at any rate, as the primary factor in a case where the man got nothing but a mental shock. In regard to Dr. Robert Jones's remarks, he, Dr. Thomson, feared he had stated his views somewhat clumsily, but he really agreed with what Dr. Jones had said.

*The Bacteriological Examination of the Urine in some Cases of General Paralysis.* By E. BARTON WHITE, M.R.C.S., L.R.C.P. Lond., Senior Assistant Medical Officer, Cardiff City Mental Hospital.

THE occurrence of micro-organisms in the urine is well known to be associated with a variety of pathological conditions, among which mental diseases have been included. A definite connection between urinary bacteria and insanity, however, does not seem to have been made out, the subject being even more obscure than the relation of the intestinal flora to mental disease, which has been much more frequently investigated.

In collecting a large number of samples of urine from the insane under strictly sterile conditions for another purpose, I have been struck by the frequency with which bacteria occurred in them, chiefly in the case of general paralytics; and this circumstance has led me to investigate the urine of patients suffering from general paralysis somewhat more fully.

After the first investigation of the urine in each case, hexamethylenetetramine was given internally, and after a course of this drug, a second bacteriological examination of the urine was made, after an interval during which no hexamethylenetetramine was administered. The results of these experiments are described in the present paper.

The patient in each case was put to bed, and the glans washed thoroughly, first with soap and water and then with either a 1-1,000 solution of mercury perchloride, or 1-40 carbolic

acid on sterilised wool, special attention being paid to the lips of the meatus.

A new red rubber catheter which had been previously boiled for over half an hour was then taken in surgically clean hands, and after lubrication with sterilised olive oil, was passed into the bladder.

The first two or three ounces of urine were, in every case, allowed to flow away.

A small narrow-necked flask containing about 40 c.c. of sterile broth was then quickly unplugged and the end of the catheter inserted into the narrow neck, allowing about 40 c.c. of urine to flow into the flask, which was then immediately plugged, labelled and incubated at 37° C. for forty-eight hours. The appearance of the broth was then noted, and several platinum loopfuls were transferred to a previously poured nasgar agar plate and spread on its surface.

This plate was then incubated at 37° C. for forty-eight hours. If any growth had taken place, isolated colonies were picked out and subcultured on to various media. Hanging-drop preparations were made and films also stained by various methods for microscopical examination.

The agglutinating power of the homologous and heterologous sera was then tested against these organisms, and in some cases a vaccine was prepared.

The serum of the individuals who yielded organisms in the urine was on six occasions tested for the existence of the corresponding specific antibody by the method of complement deviation. The antigen used was, as a rule, a 24-48 hour culture of the organism, which was suspended in 0.85 *per cent.* salt solution. The suspension was diluted so that the organisms were present in varying strengths, from 1,000 million per c.cm. down to 100 million per c.cm. The strength of suspension (antigen) which gave a complete hæmolysis with a constant strength of guinea-pig's complement was taken as the strength of antigen suitable for the reaction. The guinea-pig's complement was titrated in the usual way, using sheep's red corpuscles, and the corresponding hæmolytic serum supplied by an immunised rabbit.

The serum tested for the presence of specific antibody was used at first in a dilution of 1-10 and also 1-5, but as the results were negative, the serum was, in the later tests, used undiluted.

The record has, however, been uniformly negative, though, of course, the number of examinations carried out is not sufficient to justify any general statement on the absence of a specific antibody.

A sample of the patient's urine having been examined under ordinary conditions, the administration of hexamethylene-tetramine was commenced in doses of 10 gr. in solution three times a day. After a course varying from three to ten weeks the drug was discontinued for a period lasting from twenty-four hours to three or four weeks, and a second sample of the urine was taken and treated in the same way.

Since in all cases but one the urine was now found to be sterile, further bacteriological and serological examination was of course unnecessary. The instance in which the urine was not sterile is dealt with below.

The administration of hexamethylenetetramine, as is well known, is usually followed by the appearance of formaldehyde in the urine, and the sterilisation of the urine is ascribable to the bactericidal properties of this substance. Each sample of urine was therefore tested for formaldehyde by two modifications of the Arnold Mentzel reaction (1), which are carried out as follows:

As much phenylhydrazine hydrochloride as will lie on the point of a penknife is dissolved in 5 c.c. of urine in a test-tube; two to four drops of a 5 *per cent.* solution of sodium nitroprusside are added, then ten drops of a 10 *per cent.* solution of sodium hydroxide. In the presence of formaldehyde a blue-black coloration appears at once.

The above reaction is even more sensitive when potassium ferricyanide is used instead of sodium nitroprusside. A scarlet coloration is then obtained if formaldehyde is present.

It has been stated recently (2) that an excretion of formaldehyde occurs in only 50 *per cent.* of the cases treated with hexamethylene-tetramine.

This is not in agreement with the experience obtained in the present work, for out of twenty cases treated with the drug, only one failed to exhibit the Arnold Mentzel reaction for formaldehyde in the urine.

A repetition of the tests at frequent intervals after the drug had been discontinued showed that formaldehyde ceased to be excreted in the urine after a period of from six to ten hours, however long a course the patient had been subjected to. The

drug therefore appears to have no cumulative action, and larger doses than are usually given would probably have no ill-effect.

It has also been stated that the administration of hexamethylenetetramine is accompanied in a fair percentage of cases by hæmaturia. This only occurred in one of my cases, and I had no proof that the slight hæmorrhage was referable to the drug; but on the contrary, the circumstances pointed to slight trauma on the occasion of the second catheterisation.

Of the ten paralytics, three showed signs of enlargement of the prostate gland, and two had obvious urethral strictures.

The routine clinical analysis of the urine on admission to the institution showed no departure from the normal, except in one case, where a few pus-cells were found in a centrifuged deposit.

The reaction was invariably acid; the specific gravity varied from 1015 to 1030; there was no albumen or sugar, and in one case only was there a trace of indican.

Of these ten general paralytics, all showed the presence of micro-organisms in the urine before treatment, and of ten other cases of different forms of mental disorder which were used as controls, only three had any organisms present. These ten controls were selected from patients admitted about the same time as the paralytics, and so had been subjected, more or less, to the same external influences.

Table I shows the result of the examination before and after treatment by hexamethylenetetramine in the ten cases of general paralysis, and in the same number of insane patients not suffering from general paralysis.

It will be seen that no general paralytic had sterile urine, whereas three only out of the ten controls contained micro-organisms.

Of the organisms found: The *Bacillus coli communis* appeared in three cases, and it is interesting to note that these were the three cases which showed signs of enlarged prostate, where there was probably residual urine; a *diphtheroid bacillus* was found in four cases; a *staphylococcus* in five cases; a *streptococcus* in two cases; a *small diplococcus* in one case; a bacillus allied to the hay bacillus appeared in one case in company with a streptococcus, and may have been a contamination.

In six cases it will be seen that two organisms appeared together.

TABLE 1.—General Paralytics.

No. of case	1	2	3	4	5	6	7	8	9	10
Organism	<i>B. coli</i> and staphylococcus	Diphtheroid bacillus	Diphtheroid and staphylococcus	<i>B. coli</i> and staphylococcus	Diphtheroid and streptococcus	<i>B. coli</i> and diphtheroid	Diplococcus	Streptococcus and <i>B. subtilis</i>	Staphylococcus	Staphylococcus
Duration of course of hexamethylene-tetramine	10 weeks	5 weeks	5 weeks	2 weeks	10 days	3 weeks	4 weeks	5 weeks	6 weeks	4 weeks
Presence of formaldehyde	+	+	+	+	+	+	—	+	+	+
Duration of excretion of formaldehyde after discontinuation	5-6 hours	7-8 hours	7-8 hours	6-9 hours	4-6 hours	6-10 hours	—	Less than 12 hours	Less than 12 hours	6-10 hours
Interval of second test	3 weeks	10 days	10 days	6 days	6 days	2 weeks	2 weeks	3 weeks	4 weeks	2 weeks
Result of test	Sterile	Sterile	Sterile	Sterile	Sterile	Sterile	Diplococcus as before	Sterile	Sterile	Sterile

Organism	Staphylococcus	Chains of streptococci
Formaldehyde excreted	+	+
Second test after interval	—	—

*Other Forms of Mental Disorder.*

TABLE II.

	Litmus milk.	Broth.	Litmus lactose.	Litmus glucose.	Litmus saccharose.	Litmus nutritive (lactose).	Neutral red agar (glucose).	Gelatin.	Indol production.	Nagar plate.	Hanging-drop.	Staining.	Remarks.
<i>B. coli</i>	Acid, clot, gas	Uniform turbidity, surface scum	Gas, acid, deposit of pigment	Gas, acid, deposit of pigment	Gas, acid, deposit of pigment	Gas, acid, clot	Gas fluorescence	No liquefaction	+	Typical, coliform, frond-like colonies	Motile short bacillus	Gram-negative, no spores	—
<i>Diphtheroid bacillus</i>	Faintly acid, imperfect clot not formed till 5th day	Faintly turbid, granular deposit	No gas, neutral	No gas, neutral	No gas, neutral	Faintly turbid	No gas, no fluorescence	No liquefaction	—	Small, delicate, greyish, round colonies, slightly raised	Non-motile	Gram-positive, staining irregularly, and some only faintly stained. Stained by Neisser	Lying in parallels of two, three or four; or in Chinese characters; some with rounded ends, others pointed or clubbed.
<i>Staphylococcus</i>	Imperfect clot, acid	Flocculent deposit, surface scum	Faintly acid, slight gas	Acid, no gas	Acid, no gas	Acid, no gas, milky	Growth on surface only	Slowly liquefying	—	White or yellow colonies, round	Non-motile	Gram-positive, small cocci in clusters	—
<i>Streptococcus</i>	Firm clot, no acid	Flocculent deposit	Neutral, no gas	Neutral, no gas	Neutral, no gas	Neutral, no gas, imperfect clot	Growth on surface only	Slowly and only slightly liquefying.	—	Small, white, semi-transparent, round	Non-motile	Gram-positive, chains of five or seven, or more	—
<i>Small diplococcus</i>	Died on subculture	subculture	—	—	—	—	—	—	—	—	Non-motile	Gram-positive weak, in small clusters, showing well the diplo-shape	—
? <i>Bacillus subtilis</i>	Destroyed	as a possible contamination	—	—	—	—	—	—	—	—	Motile	Gram-positive, spore forming	—

The three controls which were not sterile showed two staphylo- and one streptococcus.

In the case where no formaldehyde was excreted after four weeks' administration of hexamethylenetetramine and a diplococcus was found both before and after treatment, no further investigation has been possible, as the patient has been transferred to another institution.

Table II shows the bio-chemical cultural reactions of these six organisms.

From an inspection of this table it will be seen that the *Bacillus coli* proved itself a typical one by its reactions. The diphtheroid bacillus is interesting in that it appears to be identical with the organism found by Muirhead (3) in the blood of general paralytics, with the exception that this author failed to demonstrate it in the urine, whereas I failed to find it in the blood of fifteen general paralytics examined. The specimens of blood were taken from the median basilic vein by venesection in the usual manner into a sterile syringe, and transferred to broth flasks in the same way as the urine was treated. In all fifteen cases the blood was sterile.

This diphtheroid bacillus corresponds with one of the pseudo-diphtheria bacilli from the nose, ear and throat described by Gordon (4), but the urine did not appear to come within the scope of that investigation.

The two cocci have been found frequently in the urine by others (5).

The testing of the agglutinating power of the patients' and a normal serum against these organisms gave uniformly negative results.

In regard to the preparation of and treatment by vaccines prepared from these organisms, the result on the whole is not encouraging, with the exception of one case, which exhibited a staphylococcus. This patient showed some reaction a few hours after each injection, and may be said to have been in a state of remission for the last year. This may or may not be the result of treatment.

From the results described in this paper it appears that micro-organisms are much more frequently present in the urine of general paralytics than in other forms of mental disease. This may be due to the lowered vitality known to exist in the former condition, but it is possible that these organisms have

some toxic effect which would accelerate the course of the disease.

This work does not afford any evidence that general paralysis can be connected with any one organism, or even with any group of organisms; but some of those described must have some harmful effect in the body; and since it is shown that by a course of hexamethylenetetramine the majority of these may be got rid of—at any rate in the urine—we are justified in expecting that some of the secondary infections which occur so frequently and with such fatal results in general paralysis may be warded off.

It is remarkable that, since the routine treatment of general paralytics by a prolonged course of hexamethylenetetramine, statistics show (6) that the disease has been much prolonged, convulsive seizures have been fewer, and many of the cases have been useful workers for a longer period. They have kept cleaner, and the final bed-ridden stage has been noticeably curtailed. This points to a favourable influence on the secondary infections, rather than a specific action on the disease itself.

As regards the origin of the organisms infecting the urine—whether they have ascended from or descended to the bladder—the more usual causes of cystitis may be discounted in the cases I have chosen.

None of the patients, as far as I am aware, had been catheterised previously, and it is not the rule for gonorrhœa to spread to the bladder, carrying a secondary infection with it. Enlargement of the prostate by its mechanical production of residual urine only forms a favourable site for organisms to increase and multiply when they have once found their way there.

It seems that in the majority of cases these organisms may be borne by the blood-stream, either from some infected focus or possibly from the alimentary canal.

I am indebted to Dr. H. A. Scholberg for showing me the process of complement deviation, and for his valuable help in assisting me to carry it out in the above cases.

#### REFERENCES.

- (1) Merck's *Reagenzienverzeichnis*, 1908, p. 8.
- (2) *British Medical Journal*, April 19th, 1913.
- (3) Muirhead, *Journal of Mental Science*, vol. lvi, 1910.



(4) Gordon, *Local Government Board Report*, 1901-2, *Appendix B*, No. 4.

(5) Lehmann and Neumann, vol. ii, pp. 138, 184.

(6) H. Baird, *Journal of Mental Science*, vol. lix, p. 75, 1913.

#### DISCUSSION,

At the Annual Meeting in London, July 17th, 1913.

Dr. SOUTAR said the Association must feel very much indebted to Dr. Barton White for this interesting paper, which led to a practical conclusion. This kind of research was work which only a few could do, and yet it had an important bearing on the practice of all. He felt particularly interested in what the author said concerning the urine of the general paralytic, for he said there was reason to believe that secondary infection arose therefrom. For some years now, from the clinical standpoint, he and his colleagues had treated the general paralytics with urotropin fairly constantly, because the urine was found to be in an unhealthy condition. The giving of the urotropin seemed to have been, clinically, a great advantage. In the treatment of cases of general paralysis one must at present be restricted, from the very nature of the disease, to dealing with secondary infections, and the treatment of the condition of the urine he regarded as a matter of the greatest importance. He was much indebted to Dr. Barton White for having given some *rationale* for a treatment which had been undertaken purely as the result of clinical observation. It was in that way their work would advance when there were men forthcoming who were able to carry out research such as this, which clinically was applicable to their cases.

Dr. M. ABDY COLLINS also desired to thank Dr. Barton White for his paper. He feared he was not in a position to discuss the bacteriology, but he treated a number of general paralytics with urotropin some time ago. The experience he had was that great pressure was brought to bear upon him to stop it, owing to the great increase of incontinence among the patients. He would be interested to hear whether others had had the following experience, namely, that although there was more incontinence there was no increase in the number of bedsores, possibly showing that the urine was not then infective, or perhaps it was because the patient required attention more frequently.

Dr. HOWARD said that, having himself carried out bacteriological examinations of the urine, he was much interested in the paper. The author did not say whether he thought the infection was primarily in the bladder. He had himself dealt with cases in which it seemed that the primary infection was more in the intestine, and where probably the organisms had got into the general circulation, and had been eliminated through the kidneys and thus got into the bladder, and in that way the infection had arisen. For instance, he had seen cases in which streptococci which the patient's blood agglutinated had been isolated from the faeces; and later similar streptococci had been obtained from the urine. In those cases on the recovery of the mental symptoms the streptococci had greatly diminished in both urine and faeces. He had never tried hexamethylenetetramine for these cases, but it would be interesting to know whether it would clear the urine only or also have any action on the intestine. He supposed it was that the hexamethylenetetramine formed formaldehyde, in the kidney itself, and not in the intestine. He did not know whether the author found that the organisms returned after a period, and that the substance had to be given again.

Dr. W. DAWSON desired to associate himself with the remarks of Dr. Soutar with regard to the value of such observations as were set forth in this paper. He would like to know whether any of the organisms herein described bore any resemblance to those which Dr. Ford Robertson isolated, and which that authority regarded as the cause of general paralysis.

Dr. BARTON WHITE, in reply, said he was very glad to hear from Dr. Soutar that he thought the treatment of these patients by means of urotropin was beneficial. He (Dr. White) considered that at present it was through these methods that they should try and better the conditions of the general paralytic. In reply

to Dr. Collins's observations, he had no statistics to present as to the relative amount of incontinence among the patients when urotropin was given; but he had not received reports of more frequent wettings than before that treatment was carried out. He thought the diphtheroid organism which Dr. Dawson asked about was probably the same as the one which Dr. Ford Robertson described. But there was much conflicting evidence on that point, because it had been said to have been found in normal people, in the naso-pharynx and urethra, and in most of the mucous tracts. Possibly it was the same, but he could not say definitely. In reference to Dr. Howard's question, he found that in all cases but one the urine was sterile in the general paralytics and in the controls. Excretion of formaldehyde lasted only six to ten hours, and he allowed a period of from twenty-four hours to three or four weeks before he tested it again; and in only one case was it not sterile after that time. He did not test how long the others remained sterile. Possibly they remained sterile over a month, but he would not like to say beyond what period that was so. He believed the general view was that the infection was of intestinal origin, and that the organism was circulated in the blood. That seemed to be the most likely way in which the *Bacillus coli* could get into the bladder at all events. Surgically that bacillus had got into the bladder in people who had been operated upon for hæmorrhoids.

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*Dysentery, Past and Present.* By H. S. GETTINGS,  
L.R.C.P., D.P.H., Pathologist, West Riding Asylum,  
Wakefield.

EXCEPT in asylums, dysentery in this country is a rare disease to-day. Yet it was once far otherwise, and to our ancestors the "bloody flux" was a household word. It was endemic here from the earliest times, and as we follow it down we find that it always presents the same characteristics of bursting out in an epidemic form at fairly regular intervals, then dying down to isolated cases for a longer period until the cycle was complete for the next outbreak. It was only in the latter half of the nineteenth century that it vanished from our midst, and so complete has been its departure that it has also disappeared from our memories, and to-day we have forgotten what a virulent pestilence it once was.

We have forgotten, too, how dysentery is interwoven with many of the events of our national history. In two years' time, when we shall celebrate the five hundredth anniversary of the battle of Agincourt, few will remember that it would never have been fought had it not been for this disease. Yet it is so. Henry V met with little resistance on first invading France, but his army suffered so greatly from dysentery at the siege of Harfleur in the autumn of 1415 that he was retreating to England when the French forces, anticipating an easy victory

over his weakened soldiers, blocked his way and forced him to fight at Agincourt.

It hampered, too, all the Elizabethan discoveries and adventures, for they were made in ships riddled with dysentery and scurvy. Drake himself died of dysentery on his last voyage, and though all the evidence cannot be reviewed here, it is quite probable that it was English dysentery carried out by the crew from home.

The disease can be traced through the middle ages, but it is in Tudor and Stuart times that with more complete records we first clearly observe its ravages and its regular sequence of epidemic and non-epidemic periods. What a pestilence it was at times can be seen from some of the old parish registers. Creighton (1), for instance, quotes those at Finchley, where, in 1596, out of twenty-eight deaths nineteen were from dysentery, while in 1597, a year of scarcity, out of forty-eight deaths twenty-three were from this disease.

The London Tables of Mortality were first issued in 1629, and from that year onward we are able to observe its constant presence there, in high numbers in the epidemic years, and low ones between times keeping the infection alive.

1649-52 is apparently one of the epidemic periods, after which the numbers decline for twenty years, the next outburst being, as Sydenham states (2), from the autumn of 1669 until 1672. His description of the disease is still probably the best in the language, and fills us with admiration for his clinical grasp and observation.

Twenty years go by, and then from 1693 until 1697 dysentery ravaged Great Britain.

With the eighteenth century, however, it is on the down grade. Civilisation increased, and the social conditions of all classes were improved; rough, foul and coarse as they appear to our present-day notions, they were yet an improvement on what had gone before; houses were better built, and the filth, squalor and overcrowding of the poorer classes was diminished. Epidemics of dysentery still arose, but they were not so extensive, and in the latent periods the disease died down almost to vanishing point. From being a disease of all classes as it was in Sydenham's time, it became confined to the poorer ones.

In the early part of the eighteenth century there were epidemics in both the "twenties" and the "forties," and in the

second half we find the story repeated. From 1758 to 1762 both London and the rest of the country suffered. This outbreak led to Mark Akenside, the poet, who was a physician on the staff of St. Thomas's, writing his only medical work, a small pamphlet (3) on the epidemic. Twenty quiet years went by, and though it caused deaths each autumn in London it was not until 1779 that it broke out there again. As usual the rest of the country suffered as well, and the epidemic did not die down until 1785. It rested then until 1800-02, which were again dysentery years. The outbreak at Millbank Prison in 1823 need not be dwelt upon, as it has been fully dealt with by Latham (4) and by Mott and Durham (5), while Major Arthur Griffiths, the well-known author, and an ex-governor of the prison, has also given an interesting account of it (6). Moreover, the country generally did not suffer until 1825, when the usual epidemic began and persisted for four or five years. All parts suffered as usual, and the poor of the populous towns and villages of the West Riding had their share. It was present in the district around the Wakefield Asylum both in the town and neighbourhood. At Manchester, at the Infirmary and Dispensary there, there were 323 cases of acute and chronic dysentery between 1826-29 (7).

Local epidemics occurred in the "thirties," but it was not until the due twenty years—1848-49—that the next general outbreak came, which, wide-spread as usual, heralded the cholera of the latter year. At Leeds, in 1849, the inspectors of the Board of Health reported that while they found nearly 1,100 cases of cholera, they also found nearly 1,500 of dysentery.

At this point we may leave the historical retrospect of the disease, for we have carried it well beyond the time when the first batch of asylums were built, and we have seen that it still prevailed as a general disease at that period.

But there is one point that remains to be touched upon, and that is the changing views of the medical world upon the disease. It is only a few years since it was held that colitis or dysentery was non-contagious, and our modern belief in its infectivity in this country only dates from the investigations of Mott and Durham in 1900. Yet it was a well-recognised fact to our ancestors and we only revived old beliefs. Though Sydenham himself does not refer to the point, yet the editor of

the third edition of his works, a Dr. John Swan, who brought them out in 1753, was very definite. He says: "The origin and cause of this infection and contagion may likewise be owing to the malignant effluvia exhaling from dysenteric bodies by insensible perspiration or from their excrements, milk, and sweat." We shall also see later on that in Wakefield Asylum's first outbreak, nearly ninety years ago, infection and contagion were fully recognised.

It is interesting to see how these views were upset and theory triumphed over common-sense, so that they were forgotten for more than two generations.

It was in the early years of the last century that the doctrine of non-contagion grew up and divided the medical world into contagionists and non-contagionists. The latter held that diseases—barring smallpox and measles—were not contagious. That they could arise spontaneously from some epidemic condition of the air, and that people contracted the disease, not from one another, but from this common source. These views were opposed to all the dictates of common-sense and the older physicians refused to accept them, as did the lay press, and the *Quarterly Review* for 1825 (8) has an excellent article on the question. But in the end the newer theories and the younger men triumphed and the doctrine of non-contagion held the field.

So far did they go that they denied that contagion had any part in plague and cholera, and we find the *Medico-Chirurgical Review* (9) for 1847 pouring scorn on the bare idea. This journal, in discussing the question of contagion, says: "If the broad and general question, 'Is erysipelas or dysentery infectious?' were put to a physician, he might with perfect truth and propriety answer it in the affirmative, and yet all that he meant by such a response might be the simple declaration of his opinion that these diseases are occasionally or conditionally communicable from one person to another, although such an occurrence does not happen once in a thousand times and only under very peculiar circumstances."

English medicine held these views for many years, long enough for all the previous ones to be forgotten, and we have since had to learn them all afresh, and being ignorant of our medical history are surprised when we find that what we have been propounding as the latest discovery—with great pride at our own acumen—was a matter of everyday knowledge to our

ancestors. Familiarity with history tends to humility of thought.

We now come to the question of asylum dysentery, and in the case of Wakefield are luckily enabled not only to trace its introduction there, but also to follow its course from that date to the present day.

We find that it was introduced within a week of the opening of the asylum, and a glance at the table will show that it has been possible to trace cases of dysentery in all but nine of the ninety-six years since then. And not only are the blank years insufficient to break the chain, but in many of them there are suspicious circumstances which render it probable that it occurred in them after all.

According to the ordinary returns there were many more years without the disease, but a careful search of case-books and registers has brought to light not only cases which were clearly overlooked in compiling the annual returns, but also cases euphemistically bearing other names which were dysenteric after all. The result of the search enables us to see that a definite chain connects the dysentery of to-day with that introduced at the opening.

Wakefield Asylum was designed for 150 patients, and was opened on November 23rd, 1818. Before this there had been no definite place for the pauper lunatics of the West Riding; they either had to be kept at home, frequently to be neglected and cruelly treated, or else in the workhouses, where they were herded together with ordinary paupers under shocking conditions of filth and overcrowding. Crabbe, in his poem of "The Village," draws no far-fetched picture of a workhouse of those times, and we are not surprised to find that they were hot-beds of disease.

There was no overcrowding at first at Wakefield, and it was not until 1822 that the numbers exceeded the designed accommodation; but after that they kept crowding them in until in 1824 they had 240 in the space meant for 150. At first all went well, and there was no excessive sickness; still, to overcrowd like that was to ask for trouble; they were trading on luck, and luck always turns.

Just a week after the asylum was opened, on Monday, November 30th, 1818, Thomas Umpleby, of Leathly, is admitted and the next day it is noted that he has a large and offensive stool.

A few days go by without a note, but on December 18th we find he is taking tinct. opii and kino, and on December 25th a note says, "Looseness continues frequent." The purging keeps on, and on January 5th, 1819, it is again remarked how foul the stools are. On January 9th it is noted that blood is present in them; this continues, as a note made on January 25th shows, and he loses strength and dies on February 9th.

The *post-mortem* report says: "The stomach and small intestines were found inflamed in their villous coat, the colon also in some degree; but the ileum had a large quantity of mucus on the inner coat."

If the records are correct this was how dysentery was introduced into Wakefield Asylum. It was the first case and the first death, and from that day to this the asylum does not seem to have ever been freed from the disease. It is not claimed that Umpleby was responsible for all the dysentery that has occurred since, for we know that this was not the only introduction, but we do find that there has never been a real gap from his day.

In January, 1819—before Umpleby was dead—a John Pickles was admitted, and ten days later is noted as passing loose and offensive motions, which a few days later become bloody. The purging is unaffected by treatment, and he dies at the beginning of March. At the *post-mortem* the bowels are reported as natural, but the case was probably dysenteric all the same, as there was no sign of phthisis and tubercular enteritis, and it is not necessary to have ulceration in dysentery for blood to be passed; a "weeping" area is sufficient.

Another case of introduction is found in February, 1819, in a William Ellis, of Dewsbury, and as he had been insane twelve years, we may suspect that he came from the workhouse.

He is admitted on February 8th, and on the 11th "has had a stool but complains of pain in the rectum." A few days later he is definitely noted as being purged, and on the 25th it says: "Stools bloody and with tenesmus." Two days later we find "bowels still very loose, stools bloody and mucous." This continues till his death on March 4th, and the *post-mortem* says: "A dark patch here and there on the ileum."

Another interesting case is David Wright, of Thornton, insane eleven years, and admitted in January, 1819; breaks out with offensive diarrhoea at the end of February. There is no mention of blood or slime, but it is suspicious that he was treated like the

dysentery patients with ipecacuanha root. He improves, but keeps on alternately relapsing and mending until 1822, when the stools become bloody and he dies. At the *post-mortem* there was a "descending colon thickened throughout its whole length; internal coat inflamed for part; large quantities of pus present in its course but no distinct ulceration."

If this was dysentery from the start, as it appears to be, it is easy to see how a patient like this would act as a focus of the disease and carry it on from year to year.

There are further cases in 1819 and in 1820, all either passing blood and slime or showing ulcerated bowels *post-mortem*.

In 1821 no such definite cases have been traced, but there is much chronic diarrhœa with slimy, foul motions, and causing death in several instances, which is exceedingly suspicious.

1822 shows dysentery, but 1823 is like 1821. However, in 1824 the cases are definite enough, and it is twenty years before there is another blank year.

It is in 1825 that it becomes epidemic and the trouble begins. That year it began to prevail over the country generally, and whatever the cause be which determines the epidemicity of dysentery, it began to act in the asylum as well as outside. Previous to July of that year the entries of the disease are scattered and the cases few, but from that month they occur in an increasing stream, leading to Wakefield's first and worst epidemic. This epidemic is usually stated as beginning in 1826, but as I find no appreciable gap between that year and the outbreak in the previous July, I date it as I have said.

The conditions inside the asylum were only too ready for an outbreak: 240 patients were crowded into the space meant for 150, and the wards and sleeping cells were low, dark, and badly ventilated; the sanitary arrangements were crude, as we shall see.

As a result of these conditions it is evident that the patients' resistance was seriously lowered, for when the epidemic got into its swing they died like flies.

With 1826 it begins in earnest, and 1827 is worse, but 1828 caps them all. It was the worst year of the epidemic, and even the superintendent, Dr. Ellis, who has hitherto studiously refrained from mentioning it, has to refer to it in his annual Report:

"For several years past some patients have occasionally been



afflicted with dysentery, and some have died under it, but at no former time has it been so epidemical or so fatal as during the last autumn. The cases, indeed, became so numerous as to make it necessary to disperse the patients belonging to one of the wards into different parts of the house, in order to turn that ward into an infirmary, where the dysenteric patients were kept distinct from the rest, and to avoid infection as much as possible a temporary place was built in the airing court for the washing of the linen belonging to them. It was thought, too, that the offensive and unwholesome effluvia arising from the privies, which have always been upon a bad construction, might contribute to the spreading of the disease. To remedy this an order was given by the visiting magistrates to alter them to water-closets. . . .

"Notwithstanding all that was done the disease continued and fresh cases daily occurred until a change took place in the weather. . . . It then abated and not a single case now exists in the house."

Out of about 250 lunatics resident there were 55 cases and 14 deaths, showing what a virulent epidemic it was.

Dr. Gilby, one of the visiting physicians, published an account of the outbreak in the *North of England Medical and Surgical Journal* for 1830 (10), which article was, I think, the first one ever published on asylum dysentery.

He blamed the overcrowding—which Ellis at first refused to admit—the stench from the wash-houses in the centre of the buildings, and finally the asylum drains, which emptied into foul cesspools underneath the windows of the wards. There were, he says, 103 cases between July, 1826, and the autumn of 1829, and several of the nurses and keepers contracted the disease, the washerwoman having a severe attack before she had been twenty-four hours at work.

In the Report for 1829, Ellis again had to refer to the epidemic, but as usual minimised it as much as possible. "A few <sup>(1)</sup> fatal cases of dysentery occurred in the early part of the year, but for some time past the House has been quite free from that complaint." Yet I have been able to find that from the March to the July of that year, out of nineteen *post-mortems* fifteen had died from dysentery!

The epidemic continued through 1830, and the official

(1) The italics are mine.—H. S. G.

apologist has again to admit to its presence and virulence. The Annual Report begins by stating that the numbers admitted had been less than the preceding year. "This has arisen from the crowded state of the House having been thought in some measure to have contributed to the dysentery, *which has occasionally prevailed to some extent*<sup>(1)</sup> during the past four or five years. In order, therefore, to stop the progress of this epidemic a few empty beds have constantly been reserved to afford an opportunity of removing patients into other apartments, of regularly fumigating the rooms, and of making use of other salutary measures."

Ellis retires this year on being appointed Superintendent to Hanwell, which was just opening. He had a great reputation in his day and became Sir William Ellis before he died. He was a great favourite with his committees, being able to manufacture sonorous, well-written reports interlarded with moral and religious comments on the afflictions of the patients. I do not think, however, that his actual working standard was quite so high. Connolly had a good deal to say about the state of Hanwell when he took it over, while Ellis's Wakefield reports require discounting before acceptance.

He was succeeded at Wakefield by Dr. Corsellis, and with 1831, the disease had a last spurt before dying down. Among the fatal cases was Corsellis' only child, a boy of three years. The Report notes that the disease was both prevalent and fatal in the neighbouring towns and villages that year.

Next year the mortality dies down and the big epidemic is over, though cases still occur every year.

In 1833, the Report mentions that square apertures have been cut in the doors of the men's sleeping rooms to improve the ventilation, and the decrease in dysentery is attributed to this. In 1834 Corsellis remarks that he has only had one case that year and that following that the disease had quite disappeared, leaving the asylum free.

This is a statement which has been made on many later occasions at Wakefield and always with the same amount of foundation for it. Because there have been no cases for a few months the place has been regarded as free, when, as Macalister (11) has shown in the Cheddleton outbreak, a quarter of the cases became either chronic or relapsing; when Simon (12) has shown in the Strassburg epidemic in 1908, that

(1) The italics are mine.—H.S.G.

one in twenty of the cases were carriers in 1909; and when Hawkins (13) has been able to isolate the dysentery bacillus from a relapsing case five years after the first attack.

The value of the director's remark was seen in 1835 when we find several cases recorded.

Before we leave the period of the first epidemic there is one important and interesting authority who deserves to be quoted. This is Dr. Caleb Crowther, of Wakefield, who was one of the visiting physicians to the asylum from its opening until 1828. He was a man of much originality of mind and sound views on medicine; he yet had a great propensity for quarrelling. He quarrelled with the magistrates who then controlled the asylum; he quarrelled with Ellis, and after Ellis left he transferred his animosity to Corsellis. Resigning in 1828 he kept his interest in asylums, and ten years later published a booklet entitled *Observations on the Management of Madhouses, illustrated by Occurrences in the West Riding and Middlesex Asylums*. Though he uses a caustic pen and obviously aims at both Ellis and Corsellis, still, after investigation, I consider him worthy of credence. Chapter IV is headed "Is the Spread of Dysentery in our Lunatic Asylums a Necessary Evil, or is it the Effect of Negligence on the part of the Medical Superintendent?"

This chapter has so much that is of interest that I must quote from it. It also shows the soundness of the old views before the doctrine of non-contagion took the field:

"In the large establishments of this country, where a great number of idiots, epileptics and demented patients are confined together, great vigilance on the part of the Director is required to prevent the recurrence and spread of dysentery, but although it may be impossible on all occasions to prevent the breaking out of the disease, I am convinced it will always be possible to prevent its spread, unless where it is generally epidemic in the district in which the asylum is situated. The freedom of many of our large establishments from the complaint for a long series of years sufficiently proves that there is no necessary connection between insanity and dysentery. . . . The chief sources of infection from dysentery are the effluvia arising from the morbid alvine excretions. A century ago an eminent Army physician, Dr. Donald Munro, arrested the progress of the disease by ordering the trenches used by the soldiers as privies to be covered with fresh earth every morning.

"From these observations and facts, I am firmly convinced that, when dysentery spreads by infection in an asylum, it is the result of inattention and negligence. In the printed rules of the Middlesex Asylum it is stated 'That the keepers are expected also to examine the stools and urine of the patients, so as to be able to report their state and every particular regarding them.' . . . Had this rule been acted upon, the first appearance of the disease would have been reported to the Director, who would have ordered the patient to be separated from the rest. He would have ordered the alvine discharges to be mixed with chloride of lime, not to be thrown into the common water-closets, but to be removed into a more suitable situation and covered with earth. . . .

"So little attention is paid to prevent the spread of this disease at Wakefield that even a patient in a double-bedded room, when seized with it, is not sent to the infirmary, nor is his companion in the adjacent bed sent away."

It is evident from this that we have nothing to teach Dr. Caleb Crowther.

But to resume our yearly progress. Though the epidemic was over and the cases are fewer, yet they can be traced each year till 1845, when only deaths from "chronic diarrhœa" can be found, which may or may not be dysenteric. This year is the dip between the waves, and after this the cases increase year by year till 1849, when there was a smart epidemic. After this they decreased year by year till 1855, when there are merely deaths from "chronic diarrhœa" again. So, too, in 1857 and 1858 ; but the fact that no cases can be traced in the case-books is unfortunately no proof that non-fatal cases have not occurred. In the asylum's early years the patients were reported upon like hospital patients, and the smallest illness is noted. But later on, when a clinical clerk was appointed, and, still later, the first A.M.Os., I regret to say that the entries shrink amazingly, and become scantier and scantier, so as to be of little use to us to-day.

Dysentery is, however, clearly at a low ebb from the middle of the "fifties" to the middle of the "sixties." But in 1866 we begin another dysentery period, lasting until the middle of the "seventies." Typhoid broke out that year, but with it was a large epidemic of "feverish diarrhœa," affecting staff as well as patients. There were twenty-five deaths from acute and

chronic diarrhœa and four from "dysenteric diarrhœa." The report says: "A careful enquiry led Mr. Cleaton to the conclusion that two prejudicial influences were chiefly accountable for it. Firstly, the emanations from an open drain several hundred feet in extent to the south of the asylum . . . and secondly, the overcrowding of the wards which then existed."

In 1870, as the cases still keep up, the Report says the drain is to be trapped where it enters the town sewer. Two cess-pools have been filled up, and charcoal trays have been introduced into some manholes. Instead of diminishing, the cases increased next year, so a number of new ventilating tubes were fixed to the drain, while it was decided to connect the main drain itself with the great chimney shaft, and the question of overcrowding was again investigated.

From the middle of the "seventies" the cases, however, get scantier, and in 1877 and 1878 I have failed to trace any. The next year there were several, which puzzled them. For if sanitary defects are the cause of dysentery why does it come in the absence of them? The Report plaintively says: "The occurrence of diarrhœa, sometimes of a dysenteric character, which attacked several patients at two periods of the year, has not been satisfactorily accounted for, water, milk, and drainage having been carefully examined and tested, with negative results."

They were now entering upon another spell which was to last till the middle of the "eighties." 1881 was an epidemic year, and again the Report is puzzled. "The causes, as in the case of a similar visitation two years ago, could not definitely be traced. Careful testing of all the drainage arrangements led to the discovery of a few defects within the building, but these defects did not seem adequate to account satisfactorily for the prevalent sickness." Still, they had got to do something, so they disconnected all pipes to the drains, and hoped for the best.

It was no use, however, and in 1882 they determine that sewer gas shall be definitely excluded once and for all. With the only result that next year they decide in despair that it must be overcrowding after all that was at the bottom of the trouble.

In 1884, however, they managed to find some sanitary

defects which had been overlooked, and which, to them, explained the several cases.

In 1886 the period of decline sets in, and it is fourteen years before the next big outbreak comes.

Nevertheless I have been able to trace dysentery in every year except one. The cases were clearly scanty, but on close investigation there were always one or two in each year which under the pseudonym of "catarrhal enteritis," "catarrhal ulceration of the large intestine," yet revealed from either case-book or *post-mortem* book that in life they had passed blood and slime or at death had been found to have definite ulceration of the colon.

These quiet years as usual caused hope to spring in the official breast, and in 1888 we find the Report saying—"We no longer have to complain as in former days of grave outbreaks of diarrhoea and dysentery which were clearly due to sewage gas, defective ventilation, and impure drinking water."

1891 is the only blank year; yet in it I have found two *post-mortems* with inflamed colons, but as ulceration was wanting have not claimed them as dysenteric.

From 1892 to 1899 we have deaths each year from either "influenzal" or "ulcerative" colitis, and with the latter date the quiet years ended, 1900 commencing another big epidemic period. There were some thirty cases reported that year and nearly sixty the next. In 1902 and in 1903 the numbers were nearly as many but after that the decline came. It was at this time that the old theories of drainage, etc., were thrown over and a new one adopted to the effect that the determining factor of the onset of the disease was constipation, which reduced the vitality of the bowel and rendered it susceptible to the bacillus of dysentery. In consequence of this, "white mixture" was given once a week to all the patients and the results hailed as a great triumph for the new theory.

It is a pity that the Wakefield records had not been studied before the claim was made. For they would have shown that the decline which was claimed to be due to anti-constipative measures, had always occurred after an outbreak, from the time of the big epidemic seventy years before, being attributed then to the ventilating holes which Dr. Corsellis cut in the doors of the sleeping rooms. They would have shown that the same fall had taken place after each of the other

epidemic periods—and as recently as 1888 it had been confidently claimed as a triumph for sanitation.

But the records would have shown more than that. They would have shown that in the early years of the asylum's history, when the visiting physicians were in charge, the patients were looked after as closely as hospital patients, and constipation was not allowed to take place; purging was in fashion, and they had to undergo it, not weekly, but almost daily. Yet it did not prevent the first great epidemic taking place.

The interval between the epidemics lasted from 1904 to 1911, though no years were perfectly free from the disease. There are no cases recorded for 1908, but that was due to an oversight, as from inquiries I have made I find that in January of that year there were five men in the Isolation Hospital passing blood and slime.

In 1910 Dr. Bolton was appointed superintendent, and from his previous experience of dysentery instituted additional measures in dealing with the question. Amongst other things he had the intestines opened and examined from end to end at every *post-mortem*. The routine performance of this led to the detection of cases which would otherwise have been missed. It also revealed many cases to be still active that clinically had given no signs for weeks or even months. Before his time it had been the exception to open the bowels, and it is rare to find any note in the *post-mortem* books other than "Stomach and bowels normal to external appearance."

With 1911 we enter upon another epidemic cycle, there being 35 cases and 18 deaths. Last year there were 78 cases and 35 deaths, and 1913 so far has about 20 deaths to be recorded.

And now the history of dysentery at Wakefield has been followed, and it has been seen that it is directly connected with the old epidemic dysentery, the "bloody flux" of the past, which, though it has almost died out amongst the general population, still lingers in our asylums, a living relic of the eighteenth century. Just as to-day typhus lingers in the west of Ireland, the last of our old gaol fever and a remnant of many a Black Assize.

We have seen that dysentery has been present in the asylum from that distant November day when Thomas Umpleby brought it in with him till now—ninety-five years afterwards. We have seen, too, how it has shown a ten-year cycle in its

epidemic and latent periods, differing on this point from the old epidemic dysentery of the country with its twenty-year cycle.

This article is not brought forward merely as a historical recital, but because I believe the lessons it teaches are of value—as the lessons of history always are.

For it shows that no amount of sanitation will stamp the disease out. It is no question of unsanitariness or of overcrowding, of the water supply, or of the other factors that have been proposed. They are only side issues, important in their way, but side issues all the same. It is the actual infection that matters; it is the chronic cases, the “carriers,” who keep the asylum infection going, who originate fresh cases and epidemics. They form the keystone of the problem, and must be detected and isolated before any permanent good can be done.

It is with the infective person that we must deal, and not merely the aiding conditions. It is a difficult matter to detect them, I know, but it has to be done if the disease is to be eradicated. Much can be done by a strict segregation of all patients who have dysentery, or by a routine examination of the stools.

But the real hope lies in the laboratory, and I believe that if the problem were investigated, it would not be long before the pathologist would be able to detect these carriers as to-day he detects the typhoid or the syphilitic.

And if this could but be done, dysentery would soon be as much a thing of the past in our asylums as it is among the general population.

*Table showing the Years in which Dysentery occurred at Wakefield.*

1818	.	Dysentery.	1828	.	Dysentery.
1819	.	„	1829	.	„
1820	.	„	1830	.	„
1821	.	—	1831	.	„
1822	.	Dysentery.	1832	.	„
1823	.	—	1833	.	„
1824	.	Dysentery.	1834	.	„
1825	.	„	1835	.	„
1826	.	„	1836	.	„
1827	.	„	1837	.	„



1838	.	Dysentery.	1876	.	Dysentery.
1839	.	"	1877	.	—
1840	.	"	1878	.	—
1841	.	"	1879	.	Dysentery.
1842	.	"	1880	.	"
1843	.	"	1881	.	"
1844	.	"	1882	.	"
1845	.	—	1883	.	"
1846	.	Dysentery.	1884	.	"
1847	.	"	1885	.	"
1848	.	"	1886	.	"
1849	.	"	1887	.	"
1850	.	"	1888	.	"
1851	.	"	1889	.	"
1852	.	"	1890	.	"
1853	.	"	1891	.	—
1854	.	"	1892	.	Dysentery.
1855	.	—	1893	.	"
1856	.	Dysentery.	1894	.	"
1857	.	—	1895	.	"
1858	.	—	1896	.	"
1859	.	Dysentery.	1897	.	"
1860	.	"	1898	.	"
1861	.	"	1899	.	"
1862	.	"	1900	.	"
1863	.	"	1901	.	"
1864	.	"	1902	.	"
1865	.	"	1903	.	"
1866	.	"	1904	.	"
1867	.	"	1905	.	"
1868	.	"	1906	.	"
1869	.	"	1907	.	"
1870	.	"	1908	.	"
1871	.	"	1909	.	"
1872	.	"	1910	.	"
1873	.	"	1911	.	"
1874	.	"	1912	.	"
1875	.	"	1913	.	"

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*On the Bacteriology of Asylum Dysentery in England.*

Essay for which was awarded the Bronze Medal of the Medico-Psychological Association, 1913. By D. MCKINLEY REID, M.B., Ch.B., Assistant Medical Officer, Horton Asylum, Epsom.

SINCE 1901, when Kruse (1) first isolated his so-called "pseudo-dysenteric" bacilli from an institution outbreak of dysentery in Westphalia, much research on the subject has been carried out in Germany and in the United States, and the bacteriology has been well established. In this country, however, comparatively few outbreaks have been investigated, and of these only a few can be considered satisfactory. As a matter of fact, most of the early work is valueless, as non-selective media alone were used for isolating the supposed organism. Thus in 1898 Dr. Goodliffe (2) investigated an epidemic in the Lancaster County Asylum, and came to the conclusion that it was due to a bacillus resembling *B. coli*, which he styled "the bacillus of ulcerative colitis." A similar view was held by Dr. Gemmell (3) in his monograph on the disease. Campbell (4), working at Rainhill in 1899, cultivated from the fæces of eight dysentery patients an organism which was almost certainly of the coli group, and regarded by him as a very likely cause of the disease.

Although conversant with the writings of Chantemesse and Vidal (5), who were the precursors of Shiga and were then actually working on *B. dysenteria*, he apparently failed to realise the significance of their investigations. In 1899 also, an outbreak at Mickleover Asylum was the subject of research by the Medical Superintendent, Dr. Legge (6), and Dr. Barwise, M.O.H. for Derbyshire. What was termed a "virulent" form of *B. enteritidis sporogenes* was here regarded as the cause of the disease, having been isolated from eight cases; but a "non-virulent" form was also found in the stools of healthy patients. All these observers, so far as I can gather, employed agar only for primary cultivation, and none of them carried out any satisfactory agglutination tests. In the first volume of Mott's *Archives of Neurology*, Durham (7) published the results of some work emanating from the Claybury laboratory. He claimed that from the blood, bile and certain abdominal viscera of seven out of eight patients who had died from dysentery he had cultivated a coccus so minute that it was able to pass through the pores of a Berkefeld filter. Cultures were never made from the fæces; subcultivation in a series of generations was found impossible; and the results of agglutination and animal experiments were negative. Dr. Eyre (8), of Guy's Hospital, was certainly the first in Britain to show asylum researchers the way to a sounder bacteriological knowledge of the disease. Using the Conradi-Drigalski medium, in 1904 he recovered Shiga's bacillus from the fæces of four out of five Claybury patients suffering from the acute form of the disease, and *post-mortem* from two out of four additional cases, agglutination being obtained with the organisms, and an anti-dysenteric serum in a dilution of 1-200. As the result of further investigation, he found the bacillus of Flexner also present in several of the series, and in a private (9) communication stated that he had detected it altogether in six out of nine acute, and fifteen out of thirty-five chronic cases, none of the latter yielding Shiga's bacillus. Hewlett (10) (1904) tested the sera of two asylum dysentery patients with *B. dysenteria* (obtained from Flexner), and obtained a positive result in 1-50 in one case and 1-100 in the other. In a paper read before the Royal Academy of Medicine in 1905, McWeeny (11) described a bacillus of the mannite-fermenting dysentery group which had been isolated from a severe (subsequently

fatal) case in Clonmel Asylum. This organism was noteworthy, inasmuch as it produced no indol, and caused the death of several rabbits while an attempt was being made to immunise them. In the following year Candler (12), of Claybury, investigated the fæces of six cases suspected to be suffering from acute dysentery. "In five of them an organism resembling the Flexner type was isolated and submitted to the usual tests. The sixth was subsequently proved to have intestinal tuberculosis." As the result of an examination of five cases occurring in one of the Sussex county asylums in 1908, Bushnell (13), using Conradi plates, found no dysentery bacilli present, but his report is short and incomplete. An important research was made by Aveline, Boycott and Macdonald (9) of the Lister Institute in 1909. They obtained specimens of dysenteric fæces from Cotford Asylum, and from seventeen out of nineteen Flexner's bacillus was recovered. The spleen and mesenteric gland of a fatal case yielded it also. MacConkey's bile-salt-lactose-neutral-red agar was employed for separation of the organisms by these investigators for the first time in this work. Agglutination was obtained with patients' serum and organisms up to 1-200 and 500, and a multivalent dysentery horse-serum was shown to agglutinate in a dilution of 1-1,000, and when tested to 1-10,000, time allowed being two hours.

In 1910, Dr. Macalister (14), also of the Lister Institute, had material sent him from Cheddleton Asylum in Staffordshire. His work was particularly directed towards finding evidence of dysentery carriers, but he examined 28 specimens from *acute* cases, and was able to grow *B. Flexner* from 13. "Among the remaining 15 negative samples there were 7 from which some other pathogenic form was isolated, which may have masked or replaced the primary infection. . . . Twenty-five serums from acute cases gave 17 positive results; 4 of the remaining 8 negative samples were obtained at the very commencement of the attack, that is to say, before the development of specific agglutinins." Further investigation was carried out by Candler in conjunction with Prof. Dean (12) in 1911. They state that "out of 16 cases at Claybury which had symptoms of dysentery during life, or in which lesions of a dysenteric character were found after death, 5 yielded a group of organisms known as Morgan's bacillus No. 1, and 4 yielded bacilli spoken of for convenience as Morgan's No. 3, *i.e.*, a percentage of 31 of Morgan 1, and 25 of

Morgan 3." Although admitting that in two cases an organism of probable Flexner type (and afterwards proved to be such) was isolated, these authors remark on the absence of bacilli of that group, and suggest that they have "died out *pari passu* with the more acute form of the disease, and that their place has been taken by the organism described by Dr. Morgan, and which he has shown to be associated with summer diarrhoea in children." Previously they say—"It must be stated, however, that whereas in some of the cases the majority of the colonies which appeared on the MacConkey plates were non-lactose fermenters, and a large number of which were picked off and transplanted on to slopes of agar-agar, some of these unfortunately died out before they could be fully examined. It is possible, therefore, that some of these more delicate colonies may have been those of the true Shiga or Flexner bacilli. In this research no agglutination tests were carried out with the Morgan organisms.

In 1912, Tebbutt (15) working at the Lister Institute with material from Cheddleton Asylum, examined 28 cases (unclassified clinically); 8 of these were found to be excreting dysentery bacilli. In another "all the non-lactose fermenting bacilli found showed identical characters and corresponded with Morgan's No. 4a (apparently with some affinities to the dysentery group), which was also found twice in Claybury by Candler and Dean. The other most common non-lactose fermenters found were Morgan's No. 1 in 7 cases, No. 5 in 3 cases, and No. 4b in 2 cases." "Many of these associated bacilli," he says, "were tested with the patients' serum from whom they were isolated, and in no case was any agglutination observed, though positive with *Bacillus* 'Y' in each case." At the West Riding of Yorkshire Asylum (16) an investigation of dysentery cases was commenced last year by the pathologist, Dr. Nabarro, and in a preliminary note it is stated that "Flexner's bacillus was found in the fæces of 4 cases out of 18, and that 10 of the bloods agglutinated the Flexner or 'Y' dysentery bacillus." Dr. Gettings is now conducting an elaborate inquiry into the ætiology of the disease, but his results have not yet been published.

From the foregoing it will be seen, therefore, that in the great majority of cases of asylum dysentery satisfactorily investigated, the organism regarded as responsible for the disease has been some type of Flexner's bacillus. The bacillus

of Shiga has been detected in only one series of cases, and in that it was associated with the former. B. Morgan I in the absence of convincing serological tests cannot be definitely held to have a causative rôle, although its relation to the summer diarrhoea of infants seems certain (17). It is possible that some member or members of the coli group may take on a specific pathogenic character in connection with the disease, but such has not been proved.

It can hardly be wondered that the ratio of positive findings of a Flexner organism to number of cases examined is no higher, for, as Macalister aptly remarks, "a minute portion only of a small sample of a single stool is examined, and thus much territory must be left unexplored."

The present research, begun towards the end of 1911, has been carried out at the London County Asylum, Horton, Epsom and I wish here to acknowledge my indebtedness to Dr. J. R. Lord, Medical Superintendent, for kindly allowing me every facility towards furthering it, and to Mr. E. S. Dean, Laboratory Assistant, for much routine assistance and many valuable suggestions. Some of the cases have occurred in slight epidemic form, but for the most part they have cropped up at varying intervals. Care was taken to make the clinical diagnosis accurate (as opposed to other diarrhoeas); and when possible corroborative evidence was obtained *post-mortem*.

*Technique.*—The technique has been that adopted by most recent investigators, with a few minor modifications. All cases of diarrhoea necessitating treatment in bed have been examined, and as soon as possible after a motion has been passed a flake of mucus (preferably) or particle of faecal material is collected by means of a sterilised platinum needle and dropped direct into a tube of sterile normal saline. The fluid is shaken up and from it two or three drops are placed upon a plate of MacConkey's medium, and carefully spread by means of a delta-shaped glass rod which was previously kept in alcohol and was flamed before use. A second plate is inoculated by smearing the surface with the rod without recharging it. In many of my recent cases I have used also an agar plate for the purpose of obtaining a lined picture of the flora present, the bile-salt medium having an inhibiting effect on the growth of certain organisms (18). Some have recommended the direct application of the mucus to the plate, but so far as I have seen the resulting growth tends to

become too confluent. After thirty-six hours in the incubator at 37° C. growth is usually well advanced, and it is possible to distinguish lactose from non-lactose fermenters. While theoretically one ought to pick off all the white colonies, the expense of time and media is such a consideration when the work is being done merely in one's leisure that I have made it a practice to select three, these having been chosen because of showing some differences under the hand lens or low power. As a rule, however, such differences depend chiefly on the varying condition of the medium and the abundance of the red colonies. The presence of *B. proteus* and *B. pyocyaneus*, too, quickly alters the state of the plate. Consequently I am unable to endorse the statement (19) that the colonies of *B. dysenteriae* on MacConkey's agar are to some extent characteristic, in that each white colony is surrounded by a clear zone distinctly more yellow (*i.e.*, more alkaline) in colour than the rest of the medium. Subcultures from the selected colonies are then made in lactose, glucose and mannite broths. Lactose is used to confirm the previous reaction; glucose to separate gas from non-gas producers (dysentery bacilli being of latter type); and mannite to determine whether the organism belongs to the Shiga and Flexner group. A stock culture of each growth is kept on an agar slope; this is subcultured every two months, and from it when time is more convenient further tests are carried out with various sugars, glucosides, and alcohols. Litmus milk is also inoculated and peptone water (1 per cent.) for the indol reaction. In some of my later cases, when it was necessary to obtain an early diagnosis for isolation or curative (autogenous vaccine) reasons, I have examined the lactose culture for motility after eight hours and tested for agglutination with a Flexner immune serum.

#### RESULT OF CULTURES.

Cultures have been made from the faeces of 35 patients suffering from asylum dysentery and in 22 instances dysentery like (Flexner) organisms have been recovered; 3 of the negative cases, however, and 2 additional ones from which cultures were not made during life proved fatal, and bacilli of the type were found in the large intestine. Thus out of 37 cases examined the bacilli were isolated from 28. In the remaining nine lactose fermenters only were found twice, organisms of the

TABLE A.—Showing in Detail Organisms isolated from Feces or Post-mortem from Cases clinically considered Dysentery.

Case No.	Type of disease.	Date of onset.	Date of culture from feces.	Result.	Organisms isolated from feces.	Organisms isolated post-mortem.	If dysentery lesions present.
1	Slight attack . . .	21.9.'11	23.9.'11	Recovered	<i>B. dysenteriae</i> (Group A)	—	—
2	Severe . . .	23.9.'11	23.9.'11	"	"	—	—
3	Moderately severe . . .	23.9.'11	23.9.'11	"	"	—	—
4	Ditto . . .	24.9.'11	26.9.'11	"	"	—	—
5	Severe in debilitated patient . . .	23.9.'11	—	Died	No cultures made	<i>B. dysenteriae</i> , Group B (caecum)	?
6	Moderately severe; protracted . . .	27.9.'11	28.9.'11	Recovered	<i>B. proteus</i>	—	—
7	Very severe . . .	11.10.'11	15.10.'11	Died	<i>B. pyocyaneus</i>	Lactose fermenters only	Yes.
8	Severe and complicated with pneumonia . . .	12.10.'11	—	"	No cultures made	<i>B. dysenteriae</i> , Group B (caecum)	"
9	Slight . . .	19.10.'11	24.10.'11	Recovered	<i>B. dysenteriae</i> (Group A)	—	—
10	Very severe in debilitated patient . . .	14.12.'11	14.12.'11	Died	"	and <i>B. Morgan I</i> (caecum)	Yes.
11	Ditto . . .	24.12.'11	27.12.'11	"	"	<i>B. dysenteriae</i> , Group C (liver)	"
12	Slight . . .	1.1.'12	2.1.'12	Recovered	"	<i>B. dysenteriae</i> , Group C (liver)	"
13	Very severe . . .	29.12.'11	3.1.'12	Died	<i>B. Morgan I</i>	—	—
14	Ditto . . .	7.1.'12	15.1.'12	"	Lactose fermenters only	<i>B. dysenteriae</i> , Group C (caecum)	Yes.
15	Severe and very protracted . . .	18.9.'11	21.1.'12	"	<i>B. of Gaertner</i> group	Lactose fermenters only <i>B. dysenteriae</i> , Group B (caecum)	"
16	Severe with tendency to relapse . . .	8.3.'12	8.3.'12	Recovered	<i>B. dysenteriae</i> (Group B)	—	—
17	Fairly severe and protracted . . .	6.3.'12	8.3.'12	Died	<i>B. Morgan I</i>	<i>B. dysenteriae</i> , Group B, and <i>B. Morgan I</i> (caecum and blood)	Yes.
18	Slight . . .	23.3.'12	24.3.'12	Recovered	<i>B. dysenteriae</i> (Group C)	—	—
19	Moderately severe . . .	26.3.'12	27.3.'12	"	"	—	—



TABLE A—continued.

Case No.	Type of disease.	Date of onset.	Date of culture from faeces.	Result.	Organisms isolated from faeces.	Organisms isolated <i>post-mortem</i> .	If dysentery lesions present.
20	Fairly severe but of short duration	6.4.'12	6.4.'12	Recovered	<i>B. dysenteriae</i> (Group B)	—	—
21	Severe attack in debilitated patient	14.4.'12	19.4.'12	Died	" (Group C)	<i>B. Morgan I</i>	Yes.
22	Moderately severe but of short duration	7.6.'12	9.6.'12	Recovered	" (Group B)	—	—
23	Severe but of short duration	11.7.'12	15.7.'12	"	" (Group A)	—	—
24	Slight	19.10.'12	20.10.'12	"	<i>B. faecalis alkaligenes</i>	—	—
25	Very severe and protracted	24.10.'12	25.10.'12	"	<i>B. of Gaertner group</i>	—	Colon not examined.
26	Severe with relapse	20.10.'12	31.10.'12	"	<i>B. dysenteriae</i> (ungrouped)	—	—
27	Very severe	10.11.'12	10.11.'12	Died	" (Group B)	<i>B. of Gaertner group</i>	Yes.
28	Very severe in debilitated patient	25.11.'12	25.11.'12	"	"	<i>B. dysenteriae</i> , Group B (caecum)	"
29	Severe and protracted	18.2.'13	19.2.'13	Recovered	"	—	—
30	Fairly severe	28.2.'13	3.3.'13	"	<i>B. of Gaertner group</i>	—	—
31	Severe and protracted	9.3.'13	10.3.'13	"	<i>B. dysenteriae</i> (Group B)	—	—
32	Very severe	16.3.'13	17.3.'13	Died	"	Lactose fermenters only	Yes.
33	Moderately severe and protracted	20.3.'13	20.3.'13	Recovered	"	—	—
34	Very severe	23.3.'13	24.3.'13	Died	<i>B. of Gaertner group</i>	<i>B. of Gaertner group</i>	Yes.
35	Severe and protracted	26.2.'13	31.3.'13	Recovered	"	—	—
36	Severe	1.5.'13	5.5.'13	Died	<i>B. typhosus</i>	<i>B. of Gaertner group</i>	Yes.
37	Recurrent slight case, thought to be a "carrier"	14.5.'13	14.5.'13	"	"	<i>B. with resemblances to B. Shiga</i>	"

Gaertner group 3 times, and *B. Proteus*, *B. pyocyaneus*, *B. faecalis alkaligenes*, and a bacillus with some resemblances to that of Shiga once each.

As regards the general appearance of the plates nothing remarkable has been observed. In only a few instances have the pale colonies outnumbered the red (*e.g.*, Case 23, ratio = 116 : 33), and in those plates from which dysentery organisms have been recovered the proportion of non-fermenters to fermenters has nearly always been low. This, I take it, is not due to any real paucity of the bacilli in the fæces, but to my preference (*vide ante*) for using a washing of the mucus rather than the mucus itself for inoculating the medium. That the percentage (75.5) of positive findings of dysentery bacilli is not higher may partly be due to this, and also to the fact that only occasionally was more than one primary culture made.

*Control cultures.*—Twenty cases of diarrhoea not dysenteric in origin have also been examined (7 of these died later and no dysentery lesions were found), and in no instance has *B. dysenteriae* or its like been found. Further cultures have been made from the fæces of 18 patients who died from diseases quite unassociated with diarrhoea, and in none of these did dysentery-like organisms appear. While admitting that it is not always easy to distinguish between dysentery and severe diarrhoea due to other causes, and that the diagnosis may sometimes have been at fault, still it is striking that in the pure controls these bacilli were not isolated. It is, however, in accordance with the experience of Aveline, Boycott and Macdonald, who obtained "no evidence of the presence of the bacillus (Flexner) in the fæces of ward contacts (26) with either normal or diarrhoeic stools." Ledingham (19), on the other hand, in an extensive investigation on typhoid carriers in different parts of the country, recovered dysentery-like strains not infrequently.

The foregoing table (A) presents a few points of interest :

(1) It shows roughly what Macalister has proved from an examination of a large number of cases, *viz.*, that the earlier in the disease the cultures are made the greater is the likelihood of dysentery bacilli being recovered. Of the nine cases in which the fæces were examined on the day of onset of the disease the bacilli were found in each, and out of ten in which a specimen was obtained four or more days after the onset no such organisms were found on six occasions.

(2) It need hardly be said that on many plates more than one type of growth resulted, and that the usual intestinal bacteria were not wanting. Only those most abundant or noteworthy for other reasons have been included. *B. Morgan I*, for instance, has always been noted. This was obtained twice from the faeces and once from the intestine unaccompanied by *B. dysenteriae* and twice in conjunction with the latter. It was found, however, in three of the eighteen controls. *B. pyocyaneus* has been looked upon with suspicion in connection with the disease, but it occurred only once; besides, Andrewes (20) has pointed out that it is met repeatedly in the intestine.

(3) The large number of fatal cases will be observed. This gives quite an erroneous impression of the average mortality rate of the disease. The attacks for the most part were certainly severe, but the majority of the patients who died had been weakened by previous illness and had little resistive power against a malady so exhausting as dysentery.

(4) As *post-mortems* are made in the high percentage of 96.4 of all deaths in the asylum it was easy to obtain evidence, corroborative or otherwise, of the clinical diagnosis. In only one case was the colon not examined. In a second, the lesions present were not regarded as definite. All the others showed signs of dysentery.

(5) Although cultures were made not only from the intestine, but generally also from liver, spleen, mesenteric gland, and blood, no dysentery-like organisms were ever isolated from spleen or gland, and once only were they detected in the blood (possibly due to contamination, as bowel yielded them in this case).

#### *Classification of the Dysentery-like Bacilli isolated.*

Attempts have been made to classify the various groups and sub-groups of the dysentery bacilli by the usual methods with indifferent success. The non-mannite fermenters (Shiga type) seem to show little or no tendency to variation, but it is otherwise with those that split mannite (type of Flexner, etc.). Agglutination tests (Widal and Bordet-Durham reactions) show marked differences between the members of the various groups, but these differences do not appear to be constant, and the absorption method of Castellani has indicated such

extremely fine variations even among strains supposed on other grounds to be closely allied, that it is regarded as of theoretical interest rather than of practical value. According to Arkwright, too, the results obtained thereby have been found to be inconsistent, and it has been unfavourably commented on by Lentz (21), Bainbridge and Dudfield (22), Morgan (23), and Wassermann (24).

At present it seems uncertain what to include in the Flexner group: one writer would admit strains which another would discard. In the absence of more accurate knowledge, therefore, and as at least a practical guide, it seems reasonable to regard as members those non-motile non-Gram-staining bacilli which do not ferment lactose, produce acid, but no gas in glucose, and which acidify mannite; whose ability to produce indol in peptone solutions is generally, but not necessarily, positive; and cultures of which are not markedly virulent to laboratory animals. The group of organisms answering to such a description would necessarily be extensive, and subdivisions have been made by various workers according to the cultural reactions shown in certain media. Hiss (25), for instance, has arranged them into three main groups. The first group is represented by bacillus "Y," which ferments monosaccharids and mannite generally within twenty-four hours. The second group, represented by Strong's Philippine culture, ferments monosaccharids and mannite with ease; saccharose is fermented comparatively readily and at times maltose, but slowly. The organisms comprising the third group, represented by Flexner's Manila cultures and Duval's Baltimore culture, ferment monosaccharids mannite, maltose and dextrose with ease. But even such a broad classification as this has been found to be inadequate now and again, its divisions being broken down by organisms which were proved to have a definite pathogenic rôle in connection with dysentery. It is little wonder, then, that further subdivision is only of use for the comparative study of, say, the members of one series of cases.

In the following table (B) the reactions of the various bacilli isolated are set down. The sugars, glucosides and alcohols have been observed daily, and the results noted at the end of a week. Any change in litmus milk was observed one, three, and fifteen days after inoculation. The para-dimethyl-amido-benzaldehyde test for indol was made on the seventh day.

A = Acid. AC = Acid and clot, D = Decolourised.

Among the thirty-seven cases it will be seen that there are various differences, but it is possible to group them (with two exceptions) into four. No. 37, however, is not a mannite fermenter. It corresponds to no well-known intestinal inhabitant, and differs from Shiga's bacillus in producing indol, fermenting glycerine, and in its action on milk. Only as regards the production of indol was there any difficulty in grouping, and as it was practically impossible sometimes to determine whether the reaction was positive or negative this test was not given much weight. Sorbite has lately (Tebbutt) been given prominence as a differentiating medium, and the rapid production of indol in peptone beef broth by fermenters of that medium has been pointed out. But the only sorbite fermenter of the series (No. 26) produced only a trace of indol in seven days. Some of the media were entirely unaffected by all the bacilli, *viz.*, cane-sugar, dextrin, inulin, salicin, dulcitol, erythrite and amygdalin; and only those of Group A affected iso-dulcitol. This latter group differs from the others notably in the formation of acid and clot in milk. While it agrees with Strong's bacillus in this respect, it is distinguished from it and other recognised types in various ways. It will be noticed, however, that, but for dextrin, it is identical with Morgan's B 16—a strain isolated from a case of dysentery at Claybury. Group B corresponds to an organism isolated by Willmore in an epidemic of children's diarrhoea in Alexandria, and differs from *B. Flexner* and Bacillus "Y" in producing no acid in maltose, arabinose and dextrin. It may here be mentioned, however, that not too much stress should be laid on these media, Macalister (26) and others discounting their reliability. There is a close similarity between Group C and one of Kruse's pseudo-dysenteriae bacilli as tested by Willmore (27), the only difference being in the decided indol-formation by the latter. The two members of Group D fail to show acid in arabinose and dextrin, and give a negative indol reaction, thereby differing from "Flexner" and "Y." Lastly, No. 26 corresponds exactly to a strain obtained by Tebbutt from Cheddleton Asylum.

The series accordingly shows six distinct strains, as tested culturally, and all of these fail to correspond in some respects with recognised types of dysentery bacilli. But surely, as has been pointed out, "it seems somewhat unreasonable to regard a bacillus as a true dysentery bacillus or not according to

whether it corresponds with a bacillus found in another part of the world, separated possibly from common ancestors by many generations, subject to different climates and other factors which might lead to variations in character" (Tebbutt); and after all, is the relation of germ to disease, as tested by serum reactions, not the best ground for determining admission to a group?

#### AGGLUTINATION TESTS.

(A) *With patient's organism and serum.*—Arkwright (28) states that the reaction in dysentery should not be considered positive unless it occurs in a dilution of 1-100. With this I do not agree. Certainly in the majority of cases positive results are obtained in dilutions considerably higher than that, but in several of my cases, although, early in the disease, clumping has not occurred in dilutions higher than 1-80, yet its specificity has been proved by agglutination in higher dilutions later, or by the presence of signs of dysentery *post-mortem*. Nor have I found much difficulty in excluding non-specific agglutination. In each case I have made hanging-drops of culture and normal saline, and in the absence of any tendency to spontaneous clumping it has been found that control serum does not agglutinate in higher dilution than 1-40. As the research progressed, therefore, I found it unnecessary to heat patients' and control serum, as recommended by Raymond (29). One can understand, however, such measures being adopted when Shiga's is the organism under observation, for with it results are regarded as positive when obtained with dilutions as low as 1-20 : 40 (Shiga (30), Castellani (31) and others).

The microscopic method has been used throughout, time allowed being one and a half hours at room temperature. At first I adopted dilutions of 1-20, 1-40 and 1-80, but soon found that these could readily be exceeded, and so used 1-50 up to 1-400; it is only where the disease is of fulminating type and the patient already so debilitated that death occurs within a day or two that dilutions lower than 1-100 are necessary. The only two cases which agglutinated with 1-80 and no higher were of such a nature; most of the others gave agglutinations in dilution ranging from 1-160 to 1-320. The time at which a positive result first appears varies; I have found it in a dilution of 1-180 on the third day, but as a rule it is a few days later, and

by the end of a fortnight is well established in all cases. The agglutinating power of patient's serum often varies considerably from day to day. This was proved thoroughly in two cases which were tested daily for the first month of the disease and every two days during the second month. Further, and as one would expect, the period of maximum agglutination varies within wide limits. In a few instances this has been reached within the second week and has thereafter declined until no positive result was obtainable, but frequently the best result was found only after the lapse of months. After what time agglutination ceases to occur at all it is impossible to say, except by repeated examinations of each case. Macalister gives the following summary from his cases:

	Positive agglutinations.	Negative agglutinations.
During the attack . . .	17	8
After six months . . .	5	6
Six months to one year . . .	7	6
One to three years . . .	12	12
Three to five years . . .	4	5
Five to eight years . . .	1	4

This question is, of course, of the greatest importance in connection with dysentery carriers, and I am at present engaged on further investigation with regard to this.

(B) *With patient's serum and B. Flexner.*—The various sera were tested with a culture of Flexner's bacillus obtained from the Lister Institute, the same dilutions being used as in the previous tests. The tendency, on the whole, was for these to require rather lower dilutions, only one giving a positive result as high as 1-320, but the results were fully confirmative of the specific relation of organism to serum.

(C) *With patient's organism and rabbit Flexner-immune serum.*—The serum (titre 1-20,000) of a rabbit immunised against an asylum strain of *B. dysenteriae* (Flexner) has been used for further identification of the bacilli isolated from the cases. Sixty-four per cent. were agglutinated in dilution of 1-20,000, 33 per cent. in 1-10,000, and 3 per cent. in 1-5000.

A few cases which I tested with "Y" serum showed that much lower dilutions were necessary than with the former. This is contrary to the experience of Morgan, but the serum used was old and may have deteriorated.



## ANIMAL EXPERIMENTS.

It is generally conceded that cultures of the Shiga type of organism are much more fatal to laboratory animals than those of the Flexner group. Nevertheless, evidence is not wanting to show that the latter may possess considerable toxic power. McWeeny's case has already been referred to. Firth (32), testing his two strains named Flexner I and III, found that subcutaneous injection of from  $\frac{1}{4}$ – $\frac{1}{2}$  of a twenty-four hours old agar slope culture produced merely a temporary fall of temperature following an initial rise, but in larger doses (varying from  $\frac{1}{2}$ – $\frac{3}{4}$  according to the size and weight of the rabbit) after an initial rise in temperature there was a marked lowering of body heat, with paralysis of the hind legs, progressive enfeeblement, and death about the fourth or fifth day. The large bowel was found to be the site of "lesions bearing a striking resemblance to those characteristic of the disease in man." On the other hand, Firth's strains II and IV, when injected, "gave rise to practically no intestinal disturbance or lesion, or any symptoms other than a temporary fall in temperature of about 1° C. lasting about a couple of days." Capt. A. T. Wells (33), having isolated a mannite-fermenting strain in nine cases of dysentery occurring in Hazaribach Gaol, in India, found that, when injected intra-peritoneally in doses of  $\frac{1}{2}$ –4 c.c. of broth or agar cultures, it produced symptoms such as paralysis of the hind legs, diarrhoea, emaciation and weakness, and finally death within one to six days. *Post-mortem*, injection of the peritoneum and colon, hæmorrhages in the cæcum, and lymph flakes of mucus in the intestinal contents were present. Flexner (34), in one of his early articles, says that his organism when injected subcutaneously into rabbits "gives rise to a localised swelling which is sometimes followed by death. At other times an abscess forms and perforates the skin, after which recovery may take place." Some years later he writes (35) of lesions being caused by intraperitoneal and intravenous inoculation which correspond with those of the observers previously mentioned, but points out its weaker pathogenicity as compared with Shiga's bacillus. It seems that few or no experiments on rabbits or guinea-pigs have been carried out on strains actually isolated from asylum cases with a view to testing their toxicity. None of Morgan's cultures so tested had this source, and

Tebbutt's attempts at infection were confined to a monkey (these, it may be said, were by various means, and all were negative). In this part of the work I have been considerably handicapped, as the Asylum's Committee make no provision for animal experiments in the laboratory. Dr. Macalister, of the Lister Institute, however, was good enough to inoculate two rabbits with cultures of Groups A and C respectively. Each received an intravenous dose of a twenty-four hours broth culture and each died within thirty-six hours. The animals were brought to "Horton" as soon after death as possible and I made the examination myself. The appearances on section were remarkably similar in each case, *viz.*, peritoneum showed some increase of fluid; mesenteric glands enlarged and congested; small intestine slightly congested in lower half; large intestine—contents fluid and mixed with mucus; mucous membrane more or less generally congested with some tumescence, submucous hæmorrhage in places, but no actual ulceration. The parallel between such a condition and that characteristic of the early disease in man will be at once apparent to anyone who has performed many autopsies in an asylum. The doses given were of course large and death was anticipated, but the localised effect of them was very remarkable. Two guinea-pigs inoculated at the same time with smaller doses were unaffected. Being desirous of having some feeding experiments carried out I approached my friend Dr. J. Walter Macleod, of Charing Cross Medical School. At my suggestion he had two rabbits carefully isolated, and cultures of Groups A and C were intimately mixed with their food. Each received three to c.c. broth cultures of the respective organisms, followed five days later by the washings of four agar slopes. All the feeds were well consumed, but with the exception of some apparent seediness on the part of Group A rabbit, no untoward symptoms resulted. The animals were killed on the tenth day and examined by myself, when the organs were found to be quite normal; nothing suggestive of an intestinal lesion was present, and in the rectum of each well-formed fæces were found. Considering the large number of bacilli that must have been ingested such a result is rather surprising in view of the fact, too, that one of Flexner's assistants, who accidentally drew a small quantity of a culture into his mouth, developed a typical attack of dysentery, and that despite having immediately used an anti-septic wash. It cannot well be attributed to a difference in

virulence between the two cultures, for Flexner's organism itself has been employed for mixing with the food of laboratory animals, for direct introduction into the stomach by means of an œsophageal tube, and into the peritoneum and bowel itself after laparotomy—with negative results constantly.

#### *A Note on Treatment.*

Vaccine treatment does not seem to have been systematically tried in this country in the case of dysentery due to Flexner's bacillus or its variants. Dr. Menzies (36) gave a trial to "a vaccine prepared in Cairo from mixed Egyptian strains," but his results do not permit of generalisation. In a few cases I have injected patients with a vaccine prepared from their own strains; whether benefit resulted is doubtful. The dosage is a matter of difficulty, and besides, it is possible that by the time an autogenous vaccine has been prepared secondary infection of the lesions has occurred. It is highly probable at any rate that chronic cases would have to be treated with more than one organism.

Serum treatment seems to offer greater promise, judging by the splendid results obtained thereby abroad in outbreaks caused by Shiga's bacillus. The Lister Institute prepares a serum which "consists of the serum of horses which have been highly immunised against the dysentery bacilli (including those of Shiga, Kruse, Flexner, Duval, etc.) and the toxic substances elaborated by these bacilli." I can find, however, no record of its extended use in asylums. If further research on the bacteriology of dysentery as it occurs in asylums were carried out in different parts of the country, and if, as seems not unlikely, several similar strains of Flexner's organism come to be regarded as the cause of most of the cases, the use of an anti-serum prepared from these for therapeutic use would be at least worth a trial.

#### *Conclusions.*

- (1) That strains of the mannite-fermenting group of dysentery bacilli have been proved to be the cause of dysentery in English asylums in the majority of cases satisfactorily investigated.
- (2) That these strains cannot be said to be identical with any of the well-known members of the group, but that, on the

other hand, several isolated from different asylums have been shown to have the same cultural characteristics.

(3) That consequently, if further and more wide-spread research were carried out and similar conclusions reached, it is reasonable to believe that an immune serum prepared from a number of these strains would be of general value in the treatment of the disease.

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*The Rôle of Syphilis in Mental Deficiency and Epilepsy:*

*A Review of 205 Cases.*—By KATE FRASER, M.B., Ch.B., B.Sc., D.P.H., Assistant Medical Officer, Govan School Board, lately Dispensary Physician, Royal Hospital for Sick Children, Glasgow, and H. FERGUSON WATSON, M.B., Ch.B., L.R.C.P., Medical Officer, H.M. Prison, Peterhead, lately Medical Officer, Royal Hospital for Sick Children's Dispensary, Glasgow, and Assistant Medical Superintendent, Renfrew District Asylum, Dykebar, Paisley.—(From the Pathological Laboratories of the University and Western Infirmary, Glasgow.)

FEW authorities on mental disease are agreed as to the part played by syphilis in causing mental deficiency. Similarly, the cause of epilepsy, although it is one of the oldest known diseases, has remained undetermined by the methods of investigation hitherto employed.

In the past, syphilis has been regarded as a relatively unimportant factor in the production of mental deficiency. This may have been due to the fact that the presence of syphilis in the parents is liable to be overlooked owing to the long periods of latency in which there is no gross clinical evidence of the disease, so that the existence of syphilitic infection in the parents of mentally deficient children is not suspected, or to the fact that congenital syphilis frequently causes death before the manifestations of mental defect can be observed. Lack of obtrusive clinical evidence, however, is no substantial proof that the condition is not due to syphilis. Since the discovery in 1907 by Wassermann, Neisser, and Bruck (1) of the syphilitic serum reaction, it has been shown that, if we disregard a few tropical diseases, a positive result is always indicative of syphilis. So far as we are aware, no general systematic

inquiry on the subject under review has been carried out in this country, though certain investigations have been made on asylum cases. These latter investigations cannot be regarded as complete, in respect that it is essential to examine other members of the family in all negative cases before concluding that the presence of syphilis cannot be detected. In conducting such an examination, it is necessary to obtain the family history, make a clinical examination, and carry out the Wassermann reaction (2). A combination of these three methods, though taking up much time, tends to more accurate conclusions, and is specially useful in dealing with congenital syphilis in children.

A review of the literature on the subject shows that with the introduction of methods of precision, the proportion of cases of mental defect attributed to syphilis by most workers is increasing.

Thus, Shuttleworth (3) examined 1,000 cases by clinical methods alone and found syphilis in ten.

Down (4) states that not more than 2 *per cent.* of idiots show signs of inherited syphilis.

Piper (5) found evidence of syphilis in 5 *per cent.* and Hahn (6) in 7.4 *per cent.*

Later, Ziehen (7) obtained 17 *per cent.* of syphilitic infections in the lesser degrees of mental deficiency.

Shuttleworth and Fletcher Beach (8) could trace inherited syphilis in only 1.17 *per cent.* of their cases.

Such were the results obtained before the use of the Wassermann reaction. Since then, however, many cases have been shown to give a positive result which present no clinical evidence of syphilis.

Lippmann (9) examined 78 cases in one asylum and obtained a positive result in 9 *per cent.*, while in another asylum he found that 13 *per cent.* gave a positive result.

Dean (10) examined 330 cases of idiots of all ages in the Wilhemstift Asylum, Potsdam, and found that 15 *per cent.* gave a positive reaction, but he was inclined to think that an examination of a series of very young patients will give a much higher percentage of positive results (11). The writers' investigations confirm this view.

Kellner, Clemenz, Brückner and Rautenberg (12) examined 216 cases and obtained a positive result in 7.4 *per cent.* of the

total, but of patients under fourteen years of age 20 *per cent.* gave a positive result, while only 5 *per cent.* of those over fourteen years were positive.

Krober (13) examined 262 idiots and obtained a positive result in 21.4 *per cent.*

Raviart, Breton, Petit, Gayet and Cannae (14) examined 246 idiots and obtained a positive result in approximately 30 *per cent.*

Chislett (15) examined 14 cases of idiocy and 8 gave a positive result.

A most extensive investigation was made by Thomsen, Boas, Hjort and Leschly (16). They examined, by the original method, 2,061 cases of mental deficiency. In 13 children under five years of age they failed to detect syphilis by the Wassermann reaction in a single case. In 130 cases between five and ten years they found 3.8 *per cent.* positive. In 420 cases between ten and fifteen years 1.4 *per cent.* In 465 between fifteen and twenty years 1.5 *per cent.* In 514 between twenty and thirty years 1.7 *per cent.* In 304 between thirty and forty years 0.65 *per cent.* In 214 over forty years 0.96 *per cent.* Thus, of 2,061 cases, 31, or 1.5 *per cent.*, gave a positive Wassermann reaction. They conclude that these results do not justify the view that syphilis is a dominating factor in the causation of mental deficiency either in town or country populations. Among epileptics they examined 25 cases between five and seventy years of age, and in only 1 case, or 0.39 *per cent.*, was a positive result obtained.

According to these workers, therefore, syphilis does not play a greater part in the production of mental deficiency than was formerly supposed.

With the object of determining what proportion of cases of mental deficiency of all degrees was due to syphilis, we have carried out independent investigations, no comparison of results being made until both investigations had been completed. The conclusion in each instance is practically the same, and points to syphilis as being a most important factor in the causation of mental deficiency.

We cannot offer any explanation of the great difference between the conclusions of Thomsen, Boas, Hjort, and Leschly on the one hand, and our own results, as well as those of investigators quoted above, on the other hand. The results in

our cases have been so definite that no doubts can be attached to them on technical grounds. We would, however, emphasise the importance of not restricting the investigation to the affected individuals. In order to trace syphilitic infection, it is important to include as many members of the family as possible in the examination. Thomsen and his co-workers do not appear to have investigated other members of the families at all.

*The Examination of Mentally Defective Children mainly attending Special Schools (by K. Fraser).*

The blood-sera of 99 mentally defective and epileptic children were examined. Of these, 10 were the subject of epileptic attacks without any apparent mental defect, 10 were cases of imbecility associated with epilepsy, and 2 were cases of congenital imbecility. The remaining 77 exhibited the lesser degrees of mental deficiency (feeble-minded). In general these children were capable of receiving some benefit from instruction in special schools, and form a group, therefore, of special importance from a sociological point of view.

Excluding the 10 cases of epilepsy, where no apparent mental defect existed, and considering only the 89 cases where defect was present, it was found that 40 gave a positive reaction, or 44·9 *per cent.*; 38 gave a negative reaction, or 42·4 *per cent.*; and 11 gave a doubtful reaction, or 12·3 *per cent.*

These cases were divided on a clinical basis into three groups: (1) Those associated with some physical defect; (2) those showing no physical defect; and (3) those associated with epilepsy.

The results of the Wassermann reaction in these groups were as follows:

	No. examined.	Results of Wassermann reaction.		
		Positive.	Negative.	Doubtful.
(1) With physical defect	23	9	11	3
(2) Without physical defect	42	20	17	5
(3) With epilepsy	24	11	10	3
Total	89	40	38	11



In view of the hitherto obscure ætiology of epilepsy, it was thought that cases where mental defect was associated with epilepsy, of whatever degree of severity, should be grouped by themselves. Of the twenty-four cases examined, fourteen were associated with the lesser degree of mental deficiency, while ten were imbeciles. In addition, it appeared to be important to examine cases of epilepsy apart from mental defect. Therefore, the serum was obtained from ten children subject to epileptic attacks, but whose mental capacity was apparently normal.

Considering the results obtained from the examination of epileptic children, we find—

Condition.	Number examined.	Results of the Wassermann reaction.		
		Positive.	Negative.	Doubtful.
Epilepsy with slight mental defect . . . . .	14	6	5	3
Epilepsy and imbecility . . . . .	10	5	5	0
Epilepsy without mental defect . . . . .	10	4	5	1
	<hr/>	<hr/>	<hr/>	<hr/>
	34	15	15	4

In all, then, 34 epileptic cases were examined. Positive reactions were obtained in 15, negative in 15, and doubtful in 4 cases. These results do not differ materially from those obtained from all mentally defective children. The number of positive reactions is practically the same, whether the epileptic attacks are associated with slight degrees of mental deficiency, with imbecility, or are unaccompanied by any apparent mental defect.

Various members of the families of 34 cases were investigated, 94 relatives being examined in all. It is specially important to investigate the families of children giving a negative or doubtful reaction. Members of the families were examined in 4 cases where a doubtful result was obtained with the serum of the defective child, and a positive result was obtained in some member of the family in all but one instance, and in the exception only the mother was examined. Members of the families were investigated in 13 cases where the child gave a negative result, and a positive Wassermann reaction was obtained in some member in 8 instances. The result of this extended examination is to increase materially the number of cases in which there was a syphilitic infection.

In one family a boy and two girls were examples of the lesser degrees of mental deficiency. They attended a class for defective children, and were reported to be making considerable progress in school work. The mother complained of loss of memory, and she was dirty and untidy. The three children all gave negative Wassermann reactions, but in the case of the mother a positive Wassermann reaction was obtained.

In another case, where the serum of a defective girl gave a negative reaction, the serum of the mother, who was a well-developed, healthy woman, and said she had never had a day's illness in her life, gave a positive Wassermann reaction.

Again, a mentally defective boy and his father both gave negative results, while the boy's twin sister and his mother both gave a positive Wassermann reaction.

In one instance the serum of the defective child herself was not examined, but the mother and sister both gave positive results.

It is thus seen that the number of mentally defective children where syphilitic infection was found to be present, either as a result of the examination of the children themselves, or of some member of their families, was raised from 40 to 52 in 90 cases examined. (1) This increases the percentage of positive reactions from 44.9 to 57.7.

All the negative and doubtful cases of epilepsy without mental defect—6 in number—were investigated, and in all but one case a positive result was obtained from some member or members of the family. In the one exception the child and mother both gave a doubtful reaction, but the mother had a definite history of syphilitic infection.

If the defective and epileptic children are classed together we get 100 children, of which 62 show syphilitic infection.

Twenty-three normal children were examined as controls. These were not selected cases, and a syphilitic infection was therefore not excluded. Although the numbers are small the results are significant. Two gave a positive result, 19 a negative, and 2 a doubtful result, while of 6 parents of normal children examined 1 gave a positive result and 5 a negative result.

A feature of very considerable importance is that of the large proportion of cases which have been shown to be syphilitic as the result of the Wassermann test of their own blood, and the

Wassermann reaction and history of relatives, only a small number present the stigmata of congenital syphilis. Thus stigmata were present in only 8 of the positive cases, or 20 *per cent.* It is, of course, recognised that normal mental development is quite compatible with the existence of congenital syphilis as evidenced by stigmata. It may be, therefore, that in cases where syphilis exerts its action on the developing nervous system the external evidences are not produced. A similar absence of stigmata has been noticed by Browning and Watson in cases of paroxysmal hæmoglobinuria (17).

*The Examination of Mentally Defective Children (a) under School Age, and (b) unfit for School by reason of their Mental Defect (by H. F. Watson).*

The blood-serum was examined in 105 cases of mental deficiency, the ages ranging from one month to seventeen years, but with the exception of 6 cases all were under fifteen years of age. The material was principally obtained at the out-patients' department of the Royal Hospital for Sick Children, Glasgow; the remainder was found in the slums. Thus the investigation was confined to cases (1) where the mental condition was of such a nature as to prevent attendance at school, (2) where the children were infants, and (3) cases which had been found by the author to be markedly defective while assisting Dr. Oswald in 1907 with his investigation for the Royal Commission on the Feeble-minded.

Of the 105 cases only 14 showed stigmata (13·4 *per cent.*). It was found that 51 gave a positive reaction, or 48·5 *per cent.*; 45 gave a negative reaction, or 42·8 *per cent.*; 9 gave a doubtful reaction, or 8·5 *per cent.*

These cases were divided into two groups: (1) Cases in which there was no clinical evidence of any other condition being associated with the mental defect, and (2) cases in which there was clinical evidence of some other defect as well as the mental one—this includes epilepsy with mental defect as well as physical defects. Group 1 contained 52 cases, and there were 53 cases in Group 2.

In Group 1 it was found that 28 gave a positive reaction, or 53·8 *per cent.*; 17 gave a negative reaction, or 32·6 *per cent.*; 7 gave a doubtful reaction, or 13·4 *per cent.*

In Group II 23 gave a positive reaction, or 43·3 *per cent.*; 28 gave a negative reaction, or 52·8 *per cent.*; 2 gave a doubtful reaction, or 3·7 *per cent.*

The following table shows the classified results:

	No. examined.	Results of the Wassermann reaction.		
		Positive.	Negative.	Doubtful.
(1) With physical defect . . .	44	19	24	1
(2) Without physical defect . . .	52	28	17	7
(3) With epilepsy . . .	9	4	4	1
Total . . .	105	51	45	9

Of the 44 cases with physical defect, 19 were positive (43·1 *per cent.*), 24 were negative (54·5 *per cent.*), and 1 was doubtful (2·2 *per cent.*). Of the 9 cases with epilepsy, 4 were positive (44·4 *per cent.*), 4 were negative (44·4 *per cent.*), and 1 was doubtful (11·1 *per cent.*). All the cases of mental deficiency with epilepsy were imbeciles. The results obtained in imbecility with epilepsy, therefore, show little difference from the results in other cases of mental deficiency.

Other members of the family were examined in 54 instances: 26 gave a positive result, 24 a negative, and 4 were doubtful. Eight patients who themselves reacted negatively and 2 doubtfuls were thus shown to have a syphilitic association by the occurrence of positive results with one or more members of the family. Hence of 105 cases examined, 61 were proved to be syphilitic.

The cases of idiocy and imbecility numbered 44; 15 of these were positive, 28 were negative, and 1 was doubtful. Where negative results had been obtained with the patients themselves, a positive reaction was present in some other member of the family in 4 instances, while 1 showed stigmata. Thus syphilis was present in 20, or 45·4 *per cent.* Twenty of these 44 cases were imbeciles, of which 11 were positive, 8 negative and 1 doubtful. Thus the positive results are equal to 55 *per cent.*, negatives 40 *per cent.*, and doubtfuls 5 *per cent.* In 3 cases which were negative, a positive result was obtained in some other member of the family, raising the total positives to 14 (70 *per cent.*).

Fourteen cases of Mongolism were examined: 3 were

positive and 11 negative. In 2 instances a positive result was obtained in some other member of the family where the child had given a negative result. Thus of the 14 cases, syphilis was present in 5 (35·7 *per cent.*).

The generally accepted view that Mongols occur among the last children of large families, or when the parents are old at the time of the birth, does not always hold, as the following examples show :

- (1) (a) A girl, æt. 6, a typical Mongol, the third of the family.
- (b) The next youngest child is also a Mongol.

Parents alive and well. Five pregnancies, no abortions ; the other three children are alive and well.

(2) A boy, æt. 1 year 10 months, a typical Mongol. Parents alive and well. Four pregnancies : First, an abortion ; second, lived only six hours ; third, the patient ; fourth, a baby six weeks old, who has syphilitic stigmata.

(3) (a) A boy, æt. 1, a typical Mongol, the third of the family. Father alcoholic ; mother was alcoholic, and died six months after the child was born. Three pregnancies : First, a girl, æt. 5½, suffers from spastic diplegia ; (b) the second child, a girl, æt. 3, is a typical Mongol.

Thus the first and third families each contain two Mongols, while the other child of the third family is a case of spastic diplegia.

In the following two families the Mongol is the youngest, but the histories show that little stress can be laid on that fact by itself.

(1) A boy, æt. 1, a Mongol, who was suffering from diphtheria at the time of examination, and who died next day. Father gives a positive specific history. Mother is dead (cause not ascertained). Twelve pregnancies : First, an abortion ; second, a miscarriage ; third, born at full time, died of convulsions ; fourth, born at full time, died of convulsions ; fifth, an abortion ; sixth, an abortion ; seventh, died of meningitis ; eighth, died of convulsions ; ninth, died of measles ; tenth, died one hour after birth ; eleventh, died of convulsions ; twelfth, the patient.

(2) A boy, æt. 4, a Mongol. Father had acquired specific disease one and a half years before the birth of this child. He was treated with mercury for two and a half years, but the Wassermann reaction is still positive. Mother alive and well.

Eight pregnancies: Seven children are alive and well, who, along with the mother, give a negative reaction. The patient gives a positive reaction.

*Method of Performing the Wassermann Reaction.*

It is unnecessary to describe in detail here the procedure followed in carrying out the serum reaction for syphilis. The method employed throughout was that of Browning, Cruickshank and Mackenzie (18). In the case of one of us (H.F.W.) the work formed part of an investigation on the rôle of syphilis in the causation of children's diseases, which included an examination of 1,010 cases by clinical and serological methods, as well as 390 other members of families and 160 controls.

In order to avoid any technical fallacies in the tests, known positive and a negative sera were included in every series of cases which were examined, and if the behaviour of these controls was in any way unsatisfactory, then the whole series was re-tested on another occasion; so that the total number of reactions performed amounted to over 2,000. *It can be said definitely with regard to the method employed that while a positive serum might be readily missed under unsuitable conditions, the erroneous return of a negative serum as a positive is a practical impossibility under the conditions observed.*

A comparison shows that the results obtained by the two independent investigations are practically identical, and that the number of positive cases is independent of the degree of mental defect present. On grouping the defective and epileptic children together, it is found that out of the 205 cases examined syphilitic infection is present in 123, or 60 *per cent.* Thus 95 gave a positive reaction, while some other member of the family gave a positive result in 28 instances, where a negative result had been obtained. Our results, therefore, show a larger proportion of cases giving a positive reaction than those of any other previous observer.

As already stated, Dean has suggested that differences in the results of various workers may be due to the fact that the percentage of positive reactions diminishes rapidly after the sixteenth year, and that many observers have grouped results got from the examination of feeble-minded individuals of all

ages. This may explain the larger percentage of positive results in our series, as no case was over seventeen years, the majority being between the ages of one month and fourteen years.

It is well known that in the latent stages of acquired syphilis, only 50 *per cent.* of cases give a positive Wassermann reaction. Hence it is probable that of the types of cases with mental defect, a larger number than those giving positive results are actually infected. This point may be brought out by a further examination of the families of cases giving a negative result.

#### *Conclusions.*

(1) Syphilis is the causative factor in a very considerable percentage of cases of mental deficiency of whatever degree of severity, as it is present in over 50 *per cent.*

(2) Syphilis is also the main causative factor in the production of that type of epilepsy which manifests itself at early ages. Syphilis is present in an equal degree in those cases in which the epilepsy is associated with mental deficiency, and in cases where no apparent mental defect exists.

(3) The investigation by means of the Wassermann test into the families of defective children who have given a negative reaction, has shown that syphilis is associated with a still higher percentage of cases than is ascertained by the examination of the patients alone. At the same time, an examination of the families of those children giving positive reactions affords further evidence of the presence of syphilitic infection.

(4) A very small percentage of cases of mental deficiency and epilepsy giving a positive Wassermann reaction show external evidence of congenital syphilis, even where the family history and the examination of other members of the family afford practically conclusive evidence of the existence of syphilitic infection.

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(1) The figure is raised from 89 to 90 by the inclusion of the case where the relatives only were examined.

### Occasional Notes.

#### *The Annual Meeting of the Medico-Psychological Association.*

Under the presidency of Dr. Chambers, the Association started again on its yearly course, and the Annual Meeting, held in London, was successful and enjoyable, eliciting an amount of interesting material and food for thought, which we venture to hope is but the earnest of more useful work to be accomplished during the ensuing twelve months.

In the case of one who is called on to fulfil the double office of President and Co-Editor of the Journal, as may be conjectured, a somewhat delicate situation arises. No doubt it would be more in accordance with the feelings of our President that little or no allusion of a personal nature should be made in these pages. We must, however, in this instance, ask him to permit the wishes of his colleagues to take precedence of his



own. And there is not a shadow of doubt that his promotion to the presidential chair was the source of the keenest gratification to every member of the Association. He must allow us, therefore, to look upon him at present as a dissociated personality, and upon his editorial functions as a "repressed complex," not, indeed, as non-existent, but as completely detached from, and overshadowed by, those attached to the higher office to which he has been unanimously elected. We must for the time being, at any rate in imagination, depose him from his premier position on the editorial staff, and in this connection at least relieve him absolutely of all responsibility.

In his presidential address Dr. Chambers took for his subject the "Prevention of the Insanities," than which perhaps no more important problem could engage the attention of psychiatrists. At the opening of the address stress is laid on the necessity of instructing the public generally in the principles of mental sanitation, with a view not merely to averting, if possible, insanity in the individual, but with the still higher object of the ultimate betterment of the race. A striking instance of the practical value of such teaching on the part of experienced specialists is to be found in the case of the "Mental Deficiency Act" recently passed, the framers of which were much influenced by the recommendations of the Sub-Committee of the Medico-Psychological Association which was specially appointed to examine the proposals in the Bill, from the members of which, at every stage of its progress through the House, it received the closest scrutiny in every detail, and but for whose very able report on the subject, of which the Government made the freest use, and have made grateful acknowledgments of their indebtedness thereto, a very different and incomparably less valuable measure might have been imposed upon the country. The efforts of the sub-committee, in fact, pursued with persistent and compelling earnestness, had a profound influence, as Dr. Hyslop, who had a lion's share in the work, explained, not only on the members of the Government, but on the House of Commons itself, the press, and the general public, and on some points bringing about a complete transformation of views. We may take this opportunity of heartily congratulating the members of that committee on the success of their labours, for which the acceptance of their skilled advice and well-thought-out opinions was a not

unwelcome reward. And while on the subject of prophylactic measures, we may also pay our tribute of appreciation to another committee of the Association, approvingly referred to in the address, who did most valuable work in connection with the question of the mental inspection of school-children, the results of which were embodied in a special report.

The complexity of causation with respect to mental disorders receives a good deal of attention in the President's address, in connection with which the age-long conflict between the rival theories of purely mechanistic activities and teleological impulse, of determinism and design, is discussed. The balance between the two is held impartially, while Dr. Chambers is evidently inclined to favour a compromise as suggested by Hobhouse in his "conditioned purpose," or, in other words, "a teleological impulse working through mechanical conditions," a view which does not differ very essentially from that evolved by popular theology.

The close dependence of the prevention of insanity on the knowledge of its causation is very properly insisted on, and an interesting parallel is drawn between the *rôle* played by tuberculosis and insanity respectively as selective agents in the process of human evolution. Both of these dire scourges may, in fact, be of distinct advantage in racial development, while we must confess that their action on the individual is wholly malignant. This view is summed up in one sentence: "We must admit that the tendency to disease or to defects is, in a word, the cost of our organisation, and that the persistence of the tendency is, by reason of the combative efforts that it evokes, a concomitant of, if not an actual factor in, our progress."

The theories associated with the terms Darwinism, Lamarckism, Neo-Lamarckism, Weissmannism, and Mendelism, together with the questions of the transmission or non-transmission of acquired characters, the relative potency of heredity and environment, and the enforced segregation of defectives, are treated in a thoroughly impartial manner, and the lines are indicated on which a reconciliation of the conflicting views, with social regeneration as a practical result, may be ultimately achieved. This will probably be based on the eventual prevalence of altruistic principles, the "recognition of such obligations as those of duty and care for others, factors

operating benevolently both for the individual and for the race."

In educational matters, the importance of adjusting methods of instruction to individual capacities and the avoidance of rigid conventional standards is emphasised. To evoke purposive effort on the part of the child in some way proportional to its ability is the great object to aim at; to adjust the quantity and quality of the work demanded of it, as far as possible, to its powers and tastes; to abstain from any endeavour to put square pegs in round holes. The modern tendency to over-much grandmotherly coddling, of sheltering the young from all possible injuries and discomforts, may lead to a lack of self-reliance and a weakening of the moral fibre. To teach them, in fact, within reasonable limits, to "endure hardness" would seem a better course, not only for the individual, but for future generations.

The whole tone of the address was that of an encouraging optimism, its burden hopefulness, hopefulness for the future of humanity, the abandonment of a pessimistic attitude as regards that future. The value of a high ideal, and of personal purposive effort towards reaching it, these indicate the main current of thought in an address which contains abundance of material for thinking minds to ponder over, and constitutes a piece of thoughtful, practical, and scholarly writing, which will be a valuable addition to the archives of the Association.

It has been often, not justly, however, thrown up as a reproach to British psychiatrists that in the work of research they lag behind their foreign colleagues. In disproof of such a view, if such were needed, we may refer our critics to the present number of the Journal, which contains two papers that embody the results of pathological and bacteriological research, *viz.*, Dr. Barton White's paper on "The Bacteriological Examination of the Urine in General Paralysis," and that of Dr. McKinley Reid "On the Bacteriology of Asylum Dysentery in England," which was awarded the Bronze Medal of the Association, both involving prolonged and careful investigation on the part of the writers. It is regrettable that work of this kind receives such scant recognition. Not even by the profession generally is it adequately appraised, and as far as the public are concerned, they know next to nothing about it. This is partly due to the fact that research work has rarely any immediate result; and it

has been the fate of most pioneers in scientific inquiries of any kind to have sown while others reaped. In their case virtue has to be its own reward. One valuable effect of this class of work is that it tends to bring psychiatry into line with general medicine. It shows that, to a great extent, similar methods are applicable in both cases; that psychiatry as a special subject is not distinct from, but a living, vital part of the great science of medicine, and that a psychiatrist belongs to that greater specialism of which each member, to use the words of Sir Thomas Barlow in his genial and generous response to the toast of "Our Medical Brethren" at the Annual Dinner, is "always striving after the unity of medicine, the unity of pathology, the unity of treatment, and the unity of life altogether." Few probably realise, or ever try to realise, what expenditure of time, of trouble, of brains, has preceded the delivery to others of the results of protracted investigations such as these papers record, nor of how little material advantage it has been to the investigators. In other departments of industry labour meets with substantial reward; research in medical science has little or no compensation of a material kind. All the more honour to those who unselfishly devote their lives to it, and leave us so largely their debtors.

A very pleasing episode in the proceedings of the Annual Meeting was the presentation by the members of the Association to Dr. Hayes Newington of his portrait by Mr. Oules, R.A. Few, if any, have deserved well of the Association to a degree at all approaching that achieved by our Treasurer. It would, in fact, be impossible to find an officer more devoted than he has been to its best interests. He possesses probably a more intimate knowledge than any other member of its history, its progress, its difficulties, and its achievements during the past forty years. His wise counsel and unrivalled experience in the affairs of the Association have always been placed to the fullest extent at the disposal of his colleagues, and have been, and are, one of its most precious assets. And it was simply an unfeigned pleasure to the members to have an opportunity of showing Dr. Newington in some way the esteem—may we not say the affection—with which he is regarded by them. In the few unassuming words in which Dr. Newington expressed his thanks for the gift, he hinted at the time when he will have to resign his trust

as not being very far off. This is a contingency we hope is still in the distant future, unless he should feel the burden too great, and we trust we are destined still to have the benefit of his services for many years to come.

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*International Medical Congress of 1913.*

There is now no doubt that this has been the best congress which has ever been held in regard not only to the number of representative men from many lands, but also to the organisation of every part, and must produce far-reaching and invaluable results.

Our special interest here is to record briefly the result of the section for Psychiatry under the presidency of Sir James Crichton-Browne. The Vice-Presidents were Sir Thomas Clouston and Sir George Savage; Drs. Craig, Goodall, Macdonald and Percy Smith were the Secretaries.

Before treating in detail of the particular work done during the sessions, it may be well to refer to the plan of work. On each day there was a more or less formal opening of a debate on some special subject. In all cases these openings were made by foreign visitors. This occupied from 9 a.m. to 1, or even 1.30 p.m. In the afternoon, more general papers were considered, the afternoon session not lasting beyond 5 o'clock in any case.

The psychiatric section really began work pleasantly with a private dinner given by Sir James Crichton-Browne on the evening of the first day. This brought together in a friendly way the men who had met in session for a short time earlier in the day. The banquet was a great social success, and started the future disputants on friendly lines. Besides the work of the sessions, there were general and special entertainments which it is hardly necessary to notice at length, but it is well to refer to the special provision for our visitors. There was a garden party at Bethlem Royal Hospital, the Governors of that institution liberally providing for 500 guests. There were, however, only some 250 present, the reduction in numbers being due to the weather, which for the only day during the congress was uncertain, and also to the fact that there was another garden party at University College. Anyway, the visitors were received at Bethlem by the President of the Hospital, Sir Thomas Crosby (late Lord Mayor) and by other

Governors. The wards were visited, and the laboratories for research were also open for inspection, but probably the most interesting part of the afternoon was the visit to the large recreation hall, in which was arranged a series of drawings and paintings done by various patients in asylums. Dr. Stoddart kindly allowed the use of the room, and his Junior Assistant Medical Officer (Dr. Brown) was chiefly occupied in the general arrangements. The collection, beside having the works of the insane, had, at the suggestion of Sir James Crichton-Browne, a number of children's drawings. Thus, it was intended to show what might be called the evolution and the dissolution of artistic feeling. There were the works of artists who had become insane, as well as those of untrained patients who believed they either had some message to convey, or who expressed their restlessness in drawing instead of talking. There were representative drawings by general paralytics and others by paranoiacs, with their strangely interesting architectural drawings, which always seem to me to be suited to the Book of Revelation. There were some interesting scrap books and albums, particularly some lent by the President, and there were some specimens of the work of the criminal lunatic, Dadd, who was for some years in Bethlem before he was sent to Broadmoor. Among these specimens might be seen examples of what is now called Futurism, Post-Impressionism, and Cubism, the drawing and wild colouring reproducing all the features of these cults. One must not lay too much stress upon this, for, as has been said, the imitative faculty is often great in the insane, and again the insane readily catch up the latest fancy and adapt it to themselves. Some of the apparent post-impressionists may have been influenced by what they had seen and heard, but most of us who have lived in asylums have had experience of the wild drawings and colourings associated with some forms of mental disorder. The exhibition attracted considerable attention, and was noticed by the public press, and we think it would be well if we could get a more representative collection together, in which the nature of the mental disorder of the patient was given, as well as a reference to his calling or training. Therefore we hope that members of the Association will bear this in mind if the plan is further developed.

Besides the visit to Bethlem Royal Hospital, there was a

most valuable and pleasant visit paid to Claybury Asylum, where Dr. Robert Jones had most kindly arranged for the reception of the visitors, and where Dr. Mott, with his usual lucidity, explained the work done at the laboratories and showed the volume of other work which is being carried on, in what might be called the premier research laboratory of the south of England. Sir James Crichton-Browne and a large party went to Cardiff, where they had not only a full description of the scientific work done in the asylum, but were also welcomed by the Lord Mayor at a public luncheon. The visits to Claybury and to Cardiff need special descriptions which doubtless will be contributed in a future number, but one cannot refrain from speaking freely about the magnificent energy which is displayed by the Cardiff authorities for the advancement of knowledge and treatment of insanity. The Lord Mayor has been a most powerful agent, and has, by his repeated visits to London and by his support of Dr. Goodall and his staff, merited more than passing notice.

A third opportunity was given for visiting an asylum, namely, that of Broadmoor (Criminal Lunatics). The members of two sections, the psychiatric and the forensic, were invited and were taken down in motors and treated with the utmost consideration and kindness by Dr. Baker and staff.

The London County Asylums and their Epileptic Colony were also thrown open to the members of the Congress.

And now as to the more special work of the section.

The subjects for discussion were, first, "The Aims of a Psychiatric-Clinic," by Adolf Meyer, of Baltimore; the second, "Psycho-analysis," by Pierre Janet, of Paris, and Dr. Jung, of Zurich; and third, "The Syphilitic and Para-syphilitic Insanities," by Prof. von Beckterew, of Russia, and Dr. August Marie, of Paris. There was a fourth discussion on "Criminal Lunacy," in which our section joined that for Forensic Medicine. There were several other papers which occupied the afternoon meetings, and these will later be considered more in detail. The mornings were practically given over to our guests, and in the afternoons some of our countrymen, for example Dr. Stoddart, contributed original work.

It would be invidious to do more than allude to some of our visitors and their personalities, but we feel that this general review would be incomplete if we did not acknowledge the

personal charm of our guests. Some will live more clearly now in association with their works. Dr. Bianchi, of Naples, was the grand old man of our section, with his useful knowledge of English and his willingness to give his experience on all subjects discussed. He left a most pleasant impression not only on our section, but on the Congress generally.

Dr. Adolf Meyer, the introducer of the first discussion, though hailing from America, is a Swiss, and proved a clear exponent of his subject and a capable speaker. Dr. Pierre Janet brought with him a reputation which he more than maintained. His agreeable and almost courtly manner won a warm place with all of us. Dr. Jung was clear and precise in his defence of Freud and in his uncompromising support of psycho-analysis. It was interesting to find how devout the worshippers of this cult are and their rather emphatic belief that unless one follows their lead one is lost. Dr. E. Jones, of Canada, combined the clear-seeing investigator with the unbiassed critic.

The discussion on the syphilitic insanities and the other discussion on toxic causation of insanity represented the opposite school of thought, whose representatives look upon all insanity not due to traumatism as resulting from toxins. The syphilitic discussion was very general, and Dr. Bechterew represented the thorough and painstaking work which is being done in Russia. Dr. August Marie, of Paris, like Dr. Bianchi, made a strong and most charming impression.

The discussion on criminal lunacy by Prof. Weygandt and by Morselli, of Italy, was important and interesting, but the introducer of the paper exceeded the time limit to a most extravagant extent, and yet he could hardly have done justice to himself or to his subject in less time.

The President exercised good judgment in giving license when the subject and the speaker required it. It is satisfactory to be able to say that, with so many men and women of so many nations with views differing essentially, there were no personal or unpleasant scenes. We agreed to differ. In a later number more detailed accounts of the work done will be published.

The Congress has been a success, and our section was second to none in the material produced and the handling of the subjects, and too much praise cannot be bestowed upon the Secretaries, to whom a very hearty vote of thanks was given at the last session.

G. H. SAVAGE.



## Part II.—Reviews.

*An Attempt to Expound the Psycho-analytical Theory. (Jahrbuch für Psychoanalytische und Psychopathologische Forschung, Bd. v, Hälfte 1, 1913.) Jung, C. G.*

The amazing change of front of the Freudian School (represented at the International Medical Congress by Jung, who also referred to Adler as a supposed pupil of Freud) has induced me to discuss critically Jung's last work, which appeared a few days ago.

"I endeavoured to point out that certain views varying from Freud's hypotheses were not contradictory assertions, but a further organic development of the principles introduced by Freud." Thus writes Jung in the effort which he made in New York in September, 1912, in the form of lectures. We contest both points: we wish to prove that his assertions are contradictory to those of Freud, and that his amplifications have neither proceeded organically from Freud, nor, as anticipating criticism, he asserts, "have fallen from the skies," but quite inorganically have been derived from a system of thought, with which psycho-analysts of all kinds, indeed, Jung himself, must have been acquainted. But the freedom of the hypotheses of science does not go so far as to see adepts, even in novices, and to regard a strange system of thought—a system, it must be well noted—as common property. If, on p. 416, Maeder is only mentioned in passing, and parenthetically, as the source of this "further organic development," this was done for the clear object of not naming Alfred Adler as the father of this system, since a glance into the same year-book would have been sufficient to see the quite insignificant defence of Maeder's authorship which manifestly admits Adler's priority.

But all this will be proved best in connection with the exposition of Jung's attempt. Thus, in the first place, our author starts from the transformations of Freud's theories, which he apparently follows through thick and thin as a most faithful adherent, and which he defends against every malevolent attack of opponents, whom, it appears, he considers morally and intellectually inferior. Let us follow him along this way, which is assuredly the way of the cross. Firstly, there is the trauma theory, which Jung values more highly than Charcot's theory of simple psychogeneity, and which, "apart from the question of thoroughness for truly typical symptomatic analyses" (p. 309), was intended to replace the idea of auto-suggestion. But "although the actual discoveries of Breuer and Freud are doubtlessly correct" (p. 310), certain objections must, nevertheless, be taken: the trauma theory proves to be a disposition theory and is rejected as too extreme. This would be contradictory—hence the germ for the overcoming of this disposition theory lies already in Freud himself, and must not be introduced from without. This germ is the theory of repression, for "the idea of repression approaches somewhat the theory of environment, which is more in accordance with the theory of environment; whereas the trauma idea is a disposition theory" (p. 313). Freud was only able to found his theory of sexual infantile trauma because he had overlooked this. Its "credit

was cut off in Germany," and this, says Jung, full of indignation against scientific narrow-mindedness, for moral reasons. And he adds: "For aught I care, the observations may be found improbable, but it is not possible for them to be considered wrong *à priori*." We reply: so long as the facts of the Freud School are not facts, but are, throughout, facts constructed in accordance with the theory (and seen *au coin du sexe*), so long must the adherents of Freud put up with being opposed, not as regards their facts, but as regards their theory, *i.e.*, *à priori*. Besides, the number of discerning critics—*i.e.*, in Jung's sense, those who have silenced the voice of their moral conscience in such investigations—is increasing year by year, and I think that an end has already been made of the everlasting complaint of Freud's school against prejudiced critics. Then what are we agitating ourselves about? He who believes that Jung is now coming forward in Freud's behalf and against the opposition is making a mistake. This was only pretence, only the cloak enveloped in which he could speak in Freud's favour, and yet fight against him; for in reality, he himself takes the moral lecture of the opposition to heart and—desexualises the sexual. To us this naturally appears as a "contradictory" denial of Freud, but to him it seems a further development of the teaching of his master. Now the manner and form of this castration is interesting; the idea of sexuality is strained until all impulses and functions of the maintenance of the individual and the race find a place in it, until, finally, it develops into the idea of life, and here a notion of what Jung regards as libido is obtained. Now a nomenclature may be conventional; no objection may be taken to this; it is neither false nor true—but it must be practical, and during the investigation must not have imported into it the significance which otherwise is not usually attached to the word. Hence libido is as unpractical as sexuality. For if, for the enlarged meaning, the word sexuality is not sufficient, as Jung alleges against Freud (and we think justly), one must not fall into the same error and introduce the word libido, because Cicero, Sallust and others have employed it in the sense of "passionate longing." At all events, it seems very peculiar to appear indignant with the opposition, and then finally to attack one's teacher with the weapons of the opposition (these objections were repeatedly uttered by Freud's opponents; see Isserlin, Kronfeld, Wahle, etc.), whilst at heart one already belongs to the belittled opposition. It appears peculiar—and not very comfortable, because, as Hinrichsen has recently stated, in theory it is better to stand on one leg, the leg of egocentric impulse, than on two (the leg of sexual impulse is here meant). But this is only by the way. Let us follow the conjuring, for the characteristics of Freud's theory now disappear; we hear no more of the sexuality of the suckling's suction, no more of nail-biting and picking of nose and ears, and no opponent could have expressed better than Jung himself how insignificant sexuality becomes (unfortunately he does not see it in the case of his libido), when he says on p. 325; "But if the point of view be adopted of regarding the attempt to gain pleasure as sexual, hunger would also have to be regarded paradoxically as a sexual endeavour, because an effort is made to gain pleasure in its satisfaction." But Jung believes that he is saving Freud—or, at least, seems to think he is doing so—when he says soon afterwards: "No

blame is intended by this; on the contrary, we must be glad that there are men who possess the courage of recklessness and one-sidedness." And thus he gradually tears to shreds all that we are accustomed to look upon as Freud's "most profound" intuitions: the polymorph perverse sexuality of the child, its auto-erotism, the doctrine of the erogenous zones—and, finally—only Robert Meyer can save us from this witches' cauldron of sexuality. One must not laugh, for there is sense in this monstrosity. I will endeavour to point it out.

The much-abused opposition blame Freud for working upon a metaphysical conception of the unknown. Here, as everywhere, Jung is in both camps. And thus, he is at once prepared to meet the critic, and to see in the unknown a "purely negative limitary idea" in Kant's sense. He assures us that in his opinion the unknown is not an entity, but only a "*terminus* regarding the metaphysical existence of which he will not permit himself to form any conception" (p. 357); but, in spite of this assertion, this does not prevent him from being a naïve and dogmatic *vitalist*. It must not be thought that I have read this into him. "I cannot refrain from remarking that the analogy with the law of the conservation of energy is a very close one, since, in this case, as in that, when one sees that the effect of an impulse is vanishing, it must be asked where the energy has meanwhile reappeared again. If we apply this point of view as a heuristic principle" (a favourite excuse at the present day of all those who wish to penetrate metaphysics by a back-door, because positivism forbids them entrance through the main door) "to the psychology of a human life, we shall make surprising discoveries. We shall then see how the most heterogeneous phases in the psychological development of an individual stand in energetic correlation. Whenever we see that a person has some spleen, a morbid conviction or some exaggerated psyche, we know that too much libido is present here, consequently that which is in excess has been subtracted from elsewhere, where, as a result, too little is present" (p. 330). And here the empirics scoff at the philosophers and indulging in puerilities! Jung might refer to the theories of Ostwald and Wentscher; these also, with a view to saving the principle of the constancy of energy (and Ostwald, moreover, owing to his monism) chose to see in the psychical simply one amongst the many modifications of the all-in-one energy. And thus, after the conquest of Freud's psycho-sexual materialism, we now stand in the "empirical" ground of a psycho-libidinous energetism of Jung. But Jung must not pose as the discoverer of this psychical energetism, for in his studies on hysteria, Breuer had already pondered whether a physical or psychical energy was in question, which sometimes becomes augmented and sometimes diminished. In any case, for the future the following equations should be noted for a better appreciation of the metamorphosis of Jung's libido: Libido is a psychical energy; it is, further, equal to Schopenhauer's will, and, finally, to vital energy, for "we are not disturbed, if we are reproached with vitalism," says Jung, on p. 342. It must be admitted that this is no invective, but two lines further Jung feels it as such: "We are quite as far removed from the belief in a specific vital energy as from other metaphysics. Libido must be the name for the energy which is manifested in the life-process, and which is subjectively perceived as endeavour and wish.

It will scarcely be necessary to defend this view" (p. 342). No, it will scarcely be necessary! Still more when the reason is heard: "In doing this we only join a mighty current of time which desires to comprehend energetically the world of phenomena!" Thus also the weak become strong. Indeed, then it would be really no longer necessary to defend this view! Then the primitive libido may merely be energy of growth, then this primitive libido may merely differentiate and desexualise itself, then it may increasingly absorb, propagate, and develop itself—for one will also understand how it suddenly becomes a *fonction du réel*; for now, everything is possible! I do not know whether, if one were given a choice between Freud's and Jung's metaphysics, one would not rather favour that of the teacher. But at the very bottom Jung is really innocent. His intention was good—he wished, as did Adler, the first of the school, "to give breathing time to the idea of libido, and to bring it out of the narrow bonds of its sexual setting." But instead of relying on the egocentric impulse (formerly Adler used Nietzsche's "Willen zur Macht," but he now chooses the perfectly neutral idea of tendency to expansion) Jung presses past this idea with which he was acquainted, and in doing so hears as an interjection from Claparède that "*intérêt*" could be said quite as well as libido, but does not follow this warning voice and stumbles upon this ante-Empedoclean libido theory. He has abandoned the sinking ship, but he has not reached the shore. Criticism and apology—both fail him. Even amongst the most violent attacks against Freud, I never yet saw one which laid bare the weakness of the teacher so much as this: "We must be glad and thankful that Freud had the courage to allow himself to be guided along this way (what is here meant is the erroneous way of psycho-analysis which was pointed out 'by the misleading tendency of the patient'). Such things do not prevent the progress of science, but the conservative adhesion to former views, the typical conservatism of authority, and the childish vanity of the learned man over his being right, and his fear of making a mistake" (p. 350). Who else is here meant but Freud? Even opponents should protect him against this charge. Although all the so-called facts are and can be contested, two things must be recognised, *viz.*, tendency and theory. According to the tendency, Freud wished to establish an individual psychology, although not at the outset (and this is what we want at the present time), and his theory is, at least from an æsthetic point of view, a consistent whole which, although daringly constructed, considerably overtops the confused incompleteness of Jung's hypothetics. For this reason alone we cannot consider it Freud's deliverance, when there is taken away from him the only thing which makes him the Freud of whom opponents and adherents speak. And this is what Jung does on p. 359: "But, so as not to do any injustice to our opposition (*i.e.*, against metaphysics) it must also be pointed out that the psycho-analytical school itself, though innocently, has given abundant occasion for misconceptions. Of these a main source is the confusion in the theoretical sphere. Unfortunately we do not possess a very presentable theory. . . . Contrary to the opinion of almost all critics, Freud is nothing less than a theorist. He is an empiric. . . ." But to dethrone Freud completely, Jung has still one more thing to do: he must prove

the inconsistency of the psycho-analytical method. And this he does at length and contradictorily; at the same time being compelled to deny the theories previously set up by himself, such as his theory of the imago (or nucleus-complex), of the parental-complex, incest-complex, Œdipus-complex (or Electra-complex)—all mere synonyms. But in this case his mode of fighting is different, for, since he must here attack himself, he does not always do this with the same clearness which should be necessary to separate that which is to strike at Freud from that which is to strike at the doctrine in general, and therewith his own also. Thus we get the impression that he defends on one side what he attacks on the other. To give one example only: In a dream analysis "certain preconceived opinions must be dismissed as much as possible" (p. 362), but still on the same page: "If once an attempt be made to sift a dream material, one must not shrink from any comparison." But then again on p. 364: "I consider that it is absolutely unjustifiable and scientifically inadmissible to guess at dreams and to make direct attempts at interpretation." Must this still be taken seriously? Shrink from no comparison, but do not guess about them! How Jung hits it off so well in his interpretation of dreams he ought to reveal to us, and not simply assure us that he is an expert who has at command means "of avoiding gross errors with certainty, and slight ones with probability" (p. 365). "Moreover, fraudulent statements are in the first place very significant for the person experimented upon, and, secondly, can as a rule easily be exposed as fraudulent" (p. 366). If this is to be more than a simple assertion, it should here be shown how the fraud is recognised, and I almost wanted to anticipate and ask of what good the fraud was in the case of a person experimented upon; but Jung only answers this by appropriating explanations of Adler, without naming him. The whole of Freud's "theory of transference" is completely transmogrified into Adler's idea of it. But the most grandiose of Jung's attitudes of simultaneous attack and defence is to be found on p. 382 *et seq.* The passage is too long to be quoted here verbatim, but certainly nothing better has ever been brought forward by a psycho-analyst against psycho-analysis.

We have now done justice to Jung's endeavours to show that certain views differing from Freud's hypotheses are not contradictory assertions; it is still necessary to consider the "further organic development" of Freud's fundamental ideas. We have already met with this further development at a few points where it appeared that simply contradiction, and not a further organic development, best characterises Jung's position. Then there only remains one doctrine which Jung might designate as a further organic development, *viz.*, the doctrine of the regression of the libido. He unfolds this doctrine, as it were, negatively in the analysis of a dream, *i.e.*, by the indirect means of showing how little fitted Freud's method is to interpret this dream, and as a theoretical consequence comes to recognise "that an involuntary *intention*"—Adler's terminus is "arrangement" or "tendency"—had to be present. The disease, which was in question in the case examined, now seems to Jung to be the key-stone of a structure purposely erected; he now looks upon the separate symptoms as "brought upon the stage, but in a manner characteristic of hysteria, that that which is brought

upon the stage is almost exactly like reality" (p. 377), a circumstance which has induced Adler to employ the characteristic "as—if" of Vaihinger. This knowledge removes to the utmost extent the ætiological significance of infantile experience. In short, from p. 384 one waits impatiently, but in vain, for Adler's name to appear at least in a foot-note; for, from this point onwards, even the very expression of the thoughts often seems known to one who is acquainted with Adler's writings. Thus regression is now represented as the *mode of adaptation* of the childish mind. As soon as the libido, Jung's shibboleth, meets with a hindrance which it cannot surmount, it turns round and replaces real action by an *illusion*—Adler here speaks of friction. On p. 395 Jung asks: "What *teleological* significance may be attached to the regression?" and answers his question: "It also frequently looks as if the patient employed his previous history just to prove that he cannot act rationally." Jung now wishes to confer a double character on the phantasies, namely, on the one hand, the morbid, opposing tendency, and, on the other hand, the conducive and preliminary exercising tendency—Adler's protecting and regressive tendencies here obtrude themselves of their own accord. Now for Jung, to deny in general that there is any teleological value in the apparently morbid phantasies of the neurotic subject would be very wrong. Jung designates the return to the infantile not only as regression and arrest, but possibly also as the discovery of a new *plan of life*. To him neurosis is now reaction to an actual conflict, the truly explanatory exposition of the problem now becomes *prospective*, and the physician must now ask: "What task does the patient desire to leave unfulfilled, what difficulty in life is he trying to avoid?" The form of explanation adopted up to the present, which endeavoured to reduce the resistance of the neurotic to his subjection to phantasy, now seems to be incorrect, and Jung speaks of *patients who make use of their neurosis as an excuse* to shirk all duties in life. And Jung, as a psycho-analyst, must have known that the following sentence is incorrect: "In the whole of nerve therapeutics, nobody has hit upon the idea of also seeing in the neurosis an attempt at cure, and consequently also of attaching a quite special teleological sense to the neurotic structures." For, in the first place, this idea is found—although only subordinately—in Freud's works; and secondly, this teleology extends through Alfred Adler's works like a red thread.

The characteristic quotations could be multiplied at will. In the second part we have had to do two things—to show that these novelties of Jung are no further organic developments of Freud's doctrines—(this they are not even for Adler), and, further, that there are parallels between Jung's and Adler's theories which are not mentioned by Jung at any point. Characteristically this parallelism is only to be found where further developments, and not simply contradictions of Freud's ideas are spoken of.

But we are doing Jung injustice. Firstly, because he acknowledges that this further development is not his property, but Maeder's, although only in a parenthesis. But *sapienti sat*. I will quote the passage. Page 416: "Nevertheless . . . one must not take up this standpoint (*i.e.*, Freud's psycho-analysis) exclusively, because the one-sided

historical conception does not take into sufficient account the teleological significance of the dreams (*pointed out by Maeder especially*). In this we hear Adler, where others attribute it to Maeder. And, finally, we wrong Jung on another ground: as Maeder has misunderstood Adler, so has Jung. To him who is acquainted with Adler's "*Leitlinie*" it will be easy to correct Jung's analyses. And how can it be otherwise? How can a teleological point of view appear correct to a mechanistic-energetic thinker? He who, in spite of all his endeavours, still carries about the garments of Freud's analysis can well take up externally an essentially strange method, but he cannot understand or assimilate it, unless he openly throws off the ill-fitting clothes and passes into the camp of the opposition, whither, in my opinion, it draws him. But we should be grateful to Jung if, from his works before 1912, he would sketch for us clearly his path from his theory of complexes to this latest teleological view of the psyche.

ALEXANDER NEUER.

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*Psychoanalysis: its Theory and Practical Application.* Brill, A. A., Ph.B., M.D. London and Philadelphia: W. D. Saunders & Co.

Since the appearance, in 1900, of *Die Traumdeutung*, by Prof. Freud, the published literature relating to the doctrines of this distinguished observer and writer, both from his own pen and from those of many others, has grown to formidable proportions. A considerable number of these publications have been written in English, and to Dr. Brill we are already indebted for placing some of Freud's own writings within the reach of those, in England and America, who are unable to read these works in the original German. Owing to the extent of the ground covered by Freud's teaching, however, the latter has for the most part been dealt with in a very fragmentary way, and aspiring students of this school of thought may be pardoned a certain feeling of bewilderment in the face of what is, after all, a great subversion of many previous teachings and methods.

Partly for this reason, but in no small part also owing to a certain antagonism not rarely of late years shown by English psychiatrists towards new conceptions—an antagonism which in this present instance has been particularly blind, in that it has been based more upon prejudice and misunderstanding than upon any scientific refutation of Freud's theories—there has been less progress made in Great Britain in the study and practice of psychoanalysis than has obtained in Europe and America.

The appearance of this book will be specially welcomed, therefore, in that it affords a more concise introduction to the methods of psychoanalysis, as well as to the doctrines upon which these methods are based, than has yet appeared in the English language. There can be no doubt as to the want felt by an increasing number of those interested in psychiatry and in psychology of some work introductory to this highly complicated technique, the actual acquirement of proficiency in which requires about three years.

It is in the light of these considerations, then, that the present reviewer has approached his task, more anxious to find what is of value

in a much-needed addition to our libraries than to pick holes in a work which undoubtedly has many deficiencies, but which we may confidently hope to see amplified or supplanted by a more comprehensive work suitable to the growing requirements of a school of thought which is still in its infancy.

It would be easy to criticise Dr. Brill for certain dogmatic statements and assumptions which in many instances are far from evident. Such assumptions have unhappily become the hall-mark of many of the writings of Freud's disciples, and have justly been the cause of much opposition where a more sober exposition of immature hypotheses and conclusions would have gained a more sympathetic hearing, and led to wider research. No doubt the more ambitious adherents of this school will find fault with Dr. Brill for his moderation, and on the other hand, its opponents will be equally implacable in the opposite direction. But while these tendencies are to be regretted, there can be no doubt as to the value and importance of most of Freud's doctrines, and there is a growing conviction as to the urgent need at the present time for patient research along the lines his genius has so brilliantly indicated.

As a literary work, the employment of expression is at times wanting in dignity. It is unfortunate that in a book of such importance the author has not more effectually protected his work from the lance of criticism, where the subject-matter, even in a scientific work, specially calls for delicate handling. Dr. Brill is, however, more successful as an author than as a translator, and he does not labour under the same disadvantages in his *Psychanalysis*, on the production of which he is in many respects to be congratulated, as he did in *Selected Papers on Hysteria*.

This volume contains 325 pages and an index. The headings of the chapters sufficiently indicate their contents, and at the end of each is placed the bibliography specially relating to it. This arrangement will not, however, be found very convenient in practice.

In an interesting preface the author clearly states the scope of psychanalysis. This is a question of much importance, and one about which there has been not a little misapprehension.

The introductory chapter deals specially with the psychoneuroses. In Chapter II, the extremely important question of dreams and their interpretation is discussed. Here, as in other respects in certain other chapters, the limitations of a book of this size, which deals with so vast a subject, has rendered necessary a too much abridged treatment of Freud's theories.

The actual neuroses—neurasthenia and anxiety-neurosis—form the subject-matter of Chapter III. The description of the former, however, is somewhat incomplete.

The next two chapters are devoted to "The Compulsion Neuroses" and "Psychanalysis and the Psychoses." The latter contains two excellent examples of the association tests as applied to two cases of dementia præcox.

Of the remaining chapters, "Hysterical Fancies and Dreamy States," "The Œdipus Complex," and "The Only or Favourite Child in Adult Life," may be specially noted. The book contains numerous illustrations from the author's own experience, besides many interesting cases quoted from other observers.



The long closing chapter deals with Freud's Theory of Wit, and the analogy between the mechanisms underlying wit and those at the base of allied psychic processes is discussed.

The subject of symbolism receives a rather scanty treatment. We may readily acknowledge the difficulties which must have presented themselves to the author in reference to this question. If it is true, however, that symbolism is the "Achilles heel" of psychoanalysis, it is specially to be regretted that more attention has not been devoted to it.

Dr. Brill's book may be confidently recommended as the best introductory work on psychoanalysis which has yet appeared in English, and it may be unhesitatingly conceded that in this book he has attained to what in his preface he has declared to be his main object, *viz.*, to present the practical application of Freud's theories in one volume.

This book should certainly help to remove many false conceptions concerning psychoanalysis, and at the same time stimulate further interest in Freud's original work.

G. F. BARHAM.

### Part III.—Epitome of Current Literature.

#### 1. Physiological Psychology.

*The Psychopathology of Anxiety* [Zur Psychopathologie der Angst].  
(*Internat. Zeit. f. Aerzt. Psychoanal.*, Heft 1, Jan., 1913.) Seif, L.

Few, if any, symptoms in the field of the psychoses and neuroses are so prominent and ubiquitous, or regarded with so much therapeutic pessimism, as pathological anxiety. Seif believes that if we can attain a deeper comprehension and a simpler theory of pathological anxiety, this therapeutic pessimism will be found to be unjustified.

What is anxiety? After considering the definition offered by various authors, Seif decides that its characteristic is the feeling of expectation of something unknown, gloomy, vague, and threatening. The corresponding phenomena on the physical side of morbid anxiety centre in the circulation and respiration; tachycardia or bradycardia, quickened, slowed, or difficult breathing, vasomotor manifestations, such as blushing, pallor, or gooseskin, increased or decreased secretions, muscular unrest or tremors, etc.

If we consider the cause we find that Oppenheim attributes it in most cases to an unusual reaction of the vasomotor system to ideas and impressions, and most authorities follow a similar course; Arndt, Krafft-Ebing, and Ball all speak of a nervous over-excitability of the inner organs. While, however, most authors have seen here the action of normal stimuli on over-excitable organisms, they have overlooked the possibility pointed out by Ernest Jones that we may be concerned with the action of abnormally strong normal stimuli. It is here that Freud comes in with his doctrine that these abnormally strong but not pathological stimuli are largely the psycho-physiological sexual impulses, working pathogenically simply because they have not found an adequate path of

discharge, so that there is an inhibition of psychosexual energy—a view which Freud based on empirical clinical work. The theory thus reached may be expressed by saying that when, under certain conditions, psycho-physiological sexual excitement finds neither physical nor psychic channels, but is hemmed in and accumulated, there arises the psychic picture of pathological anxiety with its physical accompaniments. The conditions are: on the physical side, *coitus interruptus*, unsatisfied excitement in courtship and widowhood, sexual abstinence, the menopause in women, senility combined with sexual desire in men; on the psychic side, the suppression of infantile sexual components, such as homosexuality, into the unconscious sphere. The point on which the emphasis lies is, therefore, that normal sexual wishes and stimuli become pathogenic when they are not satisfied but repressed and accumulated, without being able to find an outlet by which they may be discharged. The fit of anxiety acts as an outlet. It is a compensation which is indeed accompanied by many of the same physical phenomena, circulatory and respiratory, which accompany coitus.

The mechanism of anxiety is thus, under whatever condition it appears, and whether normal or pathological, involved in the very constitution of man, and is always the same—a mechanism of flight and of protection, the outcome of an ancient biological process in the service of the preservation, development, and adaptation of the individual to the external world.

Pathological anxiety differs, however, from the normal form in three respects: (1) In the normal emotion of anxiety the personality is usually intact, and the protective mechanism is in the interests of the whole personality. But in pathological anxiety the personality is usually more or less split, and ambivalency or ambitendency (in Bleuler's sense) is present. (2) Unlike normal anxiety, the pathological form is always concerned with sexuality. Apart from the Freudian school, this is admitted by Herz, Erb, Curschmann, Romberg, A. Hoffmann, and many others. We are not necessarily concerned with crude sexuality, but frequently with unconscious relationships in childhood obscurely persisting to cause undue sensitiveness or inaptitude in regard to normal sexual relationships. The mechanism is not a sexual mechanism, and may be aroused by intoxications (alcohol, opium, etc.), but these narcotics are often used in the service of sexual repression. (3) Pathological anxiety shows a disproportionately great intensity of physical manifestations as compared to normal anxiety. Morbid anxiety is a protection against the eruption of suppressed sexual wishes, and hence, if the danger of eruption is great, the apparently unmotivated restlessness of the patient; hence also in some cases the morbid horror of death, behind which the desire of love is concealed. Following Ernest Jones, Seif recalls that the Greeks regarded Phobos and Deimos, the gods of terror and fear, as the children of Aphrodite.

In the same number of the *Zeitschrift*, Professor Ernest Jones, unquestionably the most active and prominent English representative of the Freudian school, has a paper on "Anxiety-neurosis and Anxiety-hysteria," in which he traces the history of opinion regarding the two affections, and concludes that anxiety-neurosis may be regarded as a single type or syndrome of anxiety-hysteria, which is apparently the

wider conception. The general standpoint taken up is similar to that of Seif's paper.

HAVELOCK ELLIS.

*Art and Insanity* [*Nuove Ricerche sui Rapporti dell' Arte et della Pazzia*]. (*Rev. di Pat. Nerv. e Ment.*, April, 1913.) Pariani, C.

This lengthy study (pp. 64) is almost entirely devoted to the medical and artistic history (with many illustrations) of Pio Galeffi, for nearly forty years an inmate of the Florence Asylum, and still living, though now in a state of dementia, which is, however, in some degree penetrable by patience and sympathy. It is only during recent years that his artistic aptitudes have been seriously enfeebled. Pariani has gone to many sources to obtain a full history of his patient.

Pio Galeffi belongs to an ancient family, more distinguished in arms, politics, and religion than in art, and for some time decayed in prosperity, and occupied in humble business pursuits. He was born in 1847 of healthy parents, and no history of mental trouble could be traced on either side. He was born at term, but at a period of much national disturbance, and his mother was subjected to special anxieties, on which account lactation was irregular. Up to the age of seven he was healthy, but then became timid and impressionable without obvious cause, and had fits which were apparently of epileptic character; in a few years they ceased spontaneously. There were no other illnesses, and growth was normal. Mental development was not precocious, but gradual and harmonious. Artistic inclinations appeared early, and met with no opposition; but on account of poverty he was placed in the Florence Mosaic works (where he rose rapidly), and pursued his artistic studies concurrently, cherishing high ambitions. He worked assiduously; his habits were irreproachable; he was reserved, but his goodness is generally attested; he spent his spare time in reading and learning languages. But soon strangeness of character was noted, suspicion, a tendency to sarcasm, and a high conceit of himself. He never showed much inclination to women. In his art, Pariani notes, he reveals a certain philosophic sympathy with the figure of Satan, a tendency to melancholy and pessimism, combined with much delicacy of sentiment.

At the age of twenty he received a blow on the head, which may possibly be of some significance. At the age of twenty-six he was admitted to the asylum, but mental disorder had evidently begun at a considerably earlier period; he had experienced great grief at the death of a sister, grown strange and irascible, imagined he was persecuted, and showed hostility to his relations, especially his mother. The diagnosis at this period was "maniacal insanity alternating with hypochondriasis and a tendency to suicide." The detention was not long; but he was altogether admitted five times in rapid succession, once as a case of "remittent mania," again with "incomplete dementia with exalted ideas," and finally we find the note: "The patient, now fallen into dementia, is quiet, clean, respectful, and his behaviour is fairly regular." The final admission was in 1876 at the age of twenty-nine. The disorder had then reached its all but final stage. There can be no doubt, Pariani states, that the case must be considered one of paranoid dementia præcox.

Galeffi's art, as it may be traced in the numerous drawings, etc., here reproduced, from youth up to recent years, is all based on his early training and may be said to have followed a normal evolution, scarcely at all developing the bizarre extravagances so often found in the art of the insane. It shows a thorough absorption of classic conventions, is very various and versatile, with a sense for line, great power of expression, and wonderful vigour in the realisation of movement, as in groups of nude dancing women. One is not clearly conscious, however, (though this is not noted by Pariani) of being in the presence of a great artistic personality or of any high degree of originality; his artistic characteristics are the artistic characteristics of his race. Galeffi can scarcely be regarded as a great artist who became insane, but he is certainly entitled to a notable place among insane artists.

The final period of mental decay began in 1900. Physically he remains healthy and is never confined to his bed. All functions are regular; he looks younger than his age; the arteries show no exaggerated senility; the reflexes are normal; the special senses (except for slightly diminished hearing) remain delicate. He occasionally draws, or writes, though what he writes has no meaning. His daily habits show a morbidly meticulous regularity.

Pariani concludes with a few general remarks on the relations between art and insanity. He finds artistic impulses quite common among the insane, but he sees no ground for supposing any real connection between genius and insanity. Every man devoted to scientific or artistic pursuits seems mad to the crowd, and hence arise many popular sayings which we must not take seriously. A familiarity with mental diseases furnishes no basis for these sayings, and it is difficult, Pariani concludes, to see how any mental malady can possibly be regarded as favourable to artistic achievement. Pio Galeffi simply shows that dementia præcox may exceptionally allow special faculties to subsist, introducing into them new notes which are interesting to the psychologist; but it is not a condition favourable to creative capacity. HAVELOCK ELLIS.

*Art in Insanity [Einige Bemerkungen bez. der Zeichnungen und anderer Künstlerischer Ausserungen von Geisteskranken]. (Zeit. f. d. gesamte Psychiat., Heft 4, 1913.) Näcke, P.*

An element of pathetic interest attaches to this essay for it is the last to be received, with the special request for notice in the JOURNAL which he was wont to prefix to his more important papers, from the conscientious and indefatigable worker whose sudden death occurred a few weeks ago.

After referring to the valuable studies of Mohr, Kurbitz, and Morselli in this field, Näcke proceeds to discuss the matter on the basis of his own observations. He agrees that the general conduct of the draughtsman, before, while, and after he executes his drawing, is more significant than the drawing itself, which may be quite ordinarily correct. Usually, however, among patients of the poorer class the drawings are childishly crude, not as the result of atavism, but merely from lack of education. In any case there are very few patients who draw—at Colditz in March of this year among 349 men only two, and none among 212 women.

The real motive of the drawings is difficult to establish, and is apparently complex. A pornographic tendency is notably rare (rarer than among the sane population), even though at Colditz more than half of the inmates are criminals.

In what insane group is drawing most common? Apparently among the paranoiacs, some of whom put their whole persecutorial history into words and pictures. In the second place Näcke would place the dementia præcox group, the hebephrenic rather than the katatonic division, and especially the paranoid dement. The characteristics of the drawings in mania are such as might be expected; melancholics seldom produce drawings at all. The drawings of superior degenerates may be of high order.

Musical aptitudes are very insignificant. Few can play the piano, but those who can play mostly do so as well as before. But they are less inclined to play than before, they put less feeling into it, and they learn nothing new; they play out of habit rather than out of æsthetic interest. Näcke also questions whether patients like listening to music so much as before, and he sees no ground for reviving the ancient belief in the therapeutic effects of music. It is in convalescence that the patient enjoys music most, and then perhaps merely because he is convalescent.

Although the insane are prolific letter-writers, literary activity is very rare. Näcke met with a few fair poets and one bad novelist.

How does insanity affect the aptitudes of real artists and writers? Few observations under this head can be made in a public institution, but Näcke believes that in these cases the æsthetic sense becomes changed. He knew a distinguished pianist with general paralysis who never played spontaneously; if led to the piano he would strike a few random meaningless chords, though without dissonances. An author (paranoid dement with marked hallucinations) could not be brought to write a single line during the whole period of his disorder, and so also a practised essayist.

Näcke finally enters a caution against the common tendency to deduce an artist's or author's insanity from his work. The most bizarre and abnormal pictures may be produced by quite normal artists. What would the Philistines who called Beethoven's Ninth Symphony the production of a madman say about Wagner, Strauss, Reger, and the later French composers? There is no good reason to find insanity in the *Zarathustra* of Nietzsche (not a general paralytic in Näcke's opinion). On the other hand, the output of one who like Schumann was the life-long victim of (probably) manic-depressive insanity may remain completely normal even to the end.

HAVELOCK ELLIS.

## 2. Clinical Psychiatry and Neurology.

*Morbid Swindlers* [*Les aliénés voleurs*]. (*Bull. de la Soc. de Méd. Mont. de Belgique, April, 1913.*) *Cuyllits, Ch.*

Dr. Cuyllits has collected a series of cases in which crime against property took place in a state of mental alienation. Most of the patients were between twenty and forty.

The antecedents of the patients were bad. The author finds that alcoholism in the father, hysteria and "troubles de caractère" in the mother, alcoholism again in the maternal grandparents and insanity among the collaterals occurred in the majority of his cases. The histories of the parents themselves showed vagabondage, instability, feeble-mindedness, and in their adult years alcoholism. Among the stigmata of degeneration found, facial asymmetry was most common. Dr. Cuyllits has some important observations to make on the subject of diagnosis. He finds that legally more attention is paid to the crime than to the offender. If a crime appears normal in preparation, execution and aim, suspicions are not aroused, and frequent convictions are necessary to raise the question of the patient's responsibility. An analysis of the cases quoted reveals the predominance of feeble-mindedness, want of balance, suggestibility and liability to impulses and perversions—in fact, the characteristics of Schüle's "tempérament héréditaire."

The author finds that idiots and imbeciles act automatically, without reflection. The feeble-minded have scruples, but their want of cerebral harmony renders the latter ineffectual inhibitors. Here there is a precocious atrophy of the moral sense, impulsiveness, periods of excitement and depression, sometimes delirious phases, obvious incompetence, want of educability and of what he calls "intimidatability." Impulsive thefts are rare; rather there is an instinct for crime, which is the result of these defects.

H. W. HILLS.

*The Influence of Emotions on the Genesis of Epileptic Fits* [*De l'influence des émotions dans la genèse de l'attaque d'épilepsie.*] (*Le Prog. Méd.*, July 5th, 1913.) Rodiet, M. A.

Every emotion, that is, every shock to the nervous system, cannot leave unharmed the individual predisposed to epilepsy, such an individual being by birth and heredity particularly susceptible and impressionable. Emotions, particularly those of a distressing nature, and frights have always been given an important rôle in the production of epilepsy. Tissot states that if anger can provoke an epileptic fit, fear is most usually the determining factor in the genesis of the convulsive attack. He also records the cases noted by Reynal of horses which became epileptic from fright at gun practice.

Georget notes that "many women were menstruating when they suffered from the shock which made them epileptic." "Perhaps," he adds, "there is a peculiar brain susceptibility at this time which explains the relationship between fright and suppression of the menses, but it is certain, however, that the flow often returns but the epilepsy remains."

Nine cases are quoted in five of which the shock is objective, and in the remainder visual hallucinations of a terrifying nature precede the attack. In five cases gastro-enteric troubles are recorded, and two are cases of first menses. A case recorded by Peyroux is mentioned in which the patient "only fell because he thought he saw coming towards him at the gallop and with much noise a coach in which was seated a little man with a red hat; the fear of being knocked over made him fall unconscious." The four examples given here are: (1) The snakes

and mice of the delirium tremens variety ; (2) a stream of blood running before her, in a naturally nervous patient with pronounced "devil" ideas ; (3) an indefinite fear of something "without shape or colour which advances rapidly towards him" ; (4) a huge bull in a field of clover at sunset dashes towards her, she seizes its sexual organs—blood flows—the bull turns and removes her head on its horns.

The author continues as follows : These examples explain the fear shown by some patients at the moment of the attack. The visions of the epileptic are most often terrifying, and the expression and exclamations of the epileptic indicate the most lively fear on his part. Or more often still the protective movements, or impulsive unconscious acts which make the epileptic a danger to his neighbours have origin in these fearful sights. It is true, says Voisin, "the convulsive attack is more often followed than preceded by delusions." And also the impulsive violence takes place more often during the attack, above all in larvated epilepsy, but it can also, when hallucinatory in origin, appear as a premonitory symptom of the fit and prevent all precautions on the part of those near by its unforeseen suddenness. Visual hallucinations then, by the emotions they excite, are a cause of the fit. In the drunkard, exposed to terrifying hallucinations, the mechanism of the fit is thus shown even apart from a state of intoxication. An hallucinatory voice or smell could also produce an attack. According to some authors, notably Féré, it is by "increasing" the blood-pressure that emotional shock, anger or fear, brings on the epileptic crisis. As a fact, when the tension is suddenly increased a fall of pressure follows. Most frequently the reaction in the shape of a fit occurs just after the highest point of the curve, just when the pressure is beginning to fall, that is, when the weakness of the organism is beginning to appear. Lépine has shown that in every convulsive crisis, even that which seems to be due to emotion solely, there is a pathological complex which includes (a) a cortical trouble, either hereditary or acquired (scar) ; (b) a toxic element, gastro-intestinal in origin usually ; (c) an instability of the circulatory system and sudden changes in the circulation.

In epilepsies termed "emotional," it is not the emotion but the circulatory reaction which is allied with the emotion which provokes the fit.

In regard to the meaning of "predisposition," he quotes Maurice de Fleury, who says : "Among our patients an attack of meningo-encephalitis arises either in the course of intra-uterine life or during the period of nursing, and I begin to think all epileptics have had such an attack either during the last months of pregnancy or later as eclampsia of the new-born. Such infantile convulsions disappear, as a rule, without leaving any noticeable traces ; the child grows, talks, walks scarcely later than others—and then towards the eighth, tenth or twelfth year or even later (most frequently when digestive troubles arise), the first attack of true epilepsy occurs."

Rodiet recalls also the relationship of the first fit to the first menses, these being a nervous strain on the young girl. Emotion is only a "last straw." In the presence of an emotion or danger the healthy man quickly gets control of himself, but the weakling is overcome. The convulsive attack is the defence of one predisposed to epilepsy on whom

all the toxic and infectious complaints of infancy or intra-uterine life have left an ineffaceable mark. During the whole of such a life remains this cortical hyperexcitability, called by Féré "spasmophilie" and by Joffroy "aptitude convulsive." To such an impressionable organism the least shock will be harmful.

M. A. COLLINS.

*A Case of Presbyophrenic Dementia* [*Su di un caso di demenza presbyophrenica*]. (*Riv. di Pat. Nerv. e Ment.*, vol. xviii, Fasc. 5.) Ziveri, Alberto.

The clinical features and the histological findings in this case go to support the opinion expressed by Kraepelin that the presbyophrenia of Kalbaum-Wernicke is only a variety of senile dementia, yet a variety possessing certain constant and peculiar features over and above those of mere senile enfeeblement which entitle it to distinction under the term presbyophrenic senile dementia.

J. H. MACDONALD.

*A Contribution to the Study of Dementia Præcox: Sphygmomanometric and Sphygmographic Investigations* [*Contributo allo studio della dementia præcox: ricerche sfigmomanometriche e sfigmografiche*]. (*Riv. Sper. di Fren.*, vol. xxxix, Fasc. 1 and 2.) Cazzamalli, F.

Investigation of fifty cases of dementia præcox led to these conclusions:

(1) The blood-pressure in dementia præcox at the height of the disease is generally below the normal or at least within physiological limits. Very exceptionally it is above the upper physiological limit, and in this case the patient is almost always advanced in years.

(2) Fairly well-marked difference is observed between the two arms (from 5 to 15 or 18 mm. of Hg.), and the higher pressure is more frequently in the right arm.

(3) The pulse-rate is preferably above the normal.

(4) The rhythm and steadiness of the pulse is normal.

(5) The pulse is almost always smaller than normal, often notably so, especially where katatonic symptoms exist.

(6) The sphygmogram, especially in katatonics, has almost always this peculiarity, that the vertex, instead of being sharp, is rounded or distinctly flat.

(7) The pulse is generally katacrotic:

(a) The dicrotic wave is generally present and almost normal in position and extent.

(b) It is maintained at the same level as a horizontal prolongation or it gradually declines towards the end of the sphygm curve.

(c) The predicrotic elastic elevation is generally absent.

(d) The post-dicrotic elastic elevation is absent or but slightly marked.

(8) The above features of the pulse and the arterial hypo-pressure are especially evident in the katatonic forms.

(9) When katatonic symptoms are present, the objective examination reveals a diminished reactive and contractile capacity of the myocardium, and various alterations of the peripheral circulation, due, perhaps, to a spastic state of the vascular muscle.



(10) The sum total of clinical and experimental investigations, sphygmographic and sphygmomanometric, indicate, particularly in the presence of the katatonic syndrome, a diminished energy of the cardiac muscle and a hypertonic state of the peripheral circulation, the cause of which is at present unknown.

J. H. MACDONALD.

### 3. Treatment of Insanity.

*Intra-spinal Injections of Mercury and Neo-salvarsan in the Treatment of Syphilis of the Nervous System.* (*Gaz. des Hôp.*, June, 1913.)  
Ravout, P.

The first case was a woman with secondary syphilis suffering from headaches. She received two drops of a solution containing one-tenth of a milligramme of bichloride of mercury directly injected into the cerebro-spinal canal. The immediate result of this showed itself in a few minutes by an exacerbation of all her previous symptoms, but at the end of three days there was a marked amelioration. Unfortunately this woman was lost sight of, but she served to demonstrate the fact that mercury could be injected directly in the cerebro-spinal canal.

The second case was again a female, and she was kept under observation for four years. The chief symptoms were headache, unequal pupils with lack of light reaction, and a partial paralysis for accommodation on the same side. The injection of two minims of a 1 per cent. solution of cyanide of mercury was given, and the patient had, as a result, a gradually ascending contracture of all the muscles of the body until she was in a state of trismus. This condition lasted fifteen minutes. Four months later, though the headache was much improved, the eye conditions were not good, and a single drop of the former solution was injected. There was again some contractures of the muscles, but only slight. A week later the pupils were equal, but the light reaction was still sluggish. The patient was subsequently treated with salvarsan intravenously.

The last case was one of well-advanced cerebral trouble with loss of memory, headache, and an affected gait. Salvarsan was first used intravenously and repeatedly. The symptoms, though at first improved, later recurred, and at the end of ten months the patient's condition was as bad as ever. It was then decided to inject neo-salvarsan directly into the cerebro-spinal canal, and this was done and subsequently repeated. The patient's condition improved, but there still remained a certain amount of pain in the feet and a general weakness in walking. The Wassermann reaction was changed from positive to a negative reaction.

COLIN McDOWALL.

*Epilepsy and Late Cerebral Syphilis ; Cure by Iodothérapie* [*Epilepsie et syphilis cérébrale héréditaire tardive ; Guérison par l'iodothérapie*].  
(*Le Progrès Medical*, June 14th, 1913.) Boncour, Paul.

An apparently perfectly healthy lad, æt. 12, free from discoverable mental or physical defect, and with no history of previous illness, in January, 1912, had an epileptic fit, typical, with biting of the tongue, urination, etc. He recovered in a few minutes, and was able to return

to school next day. The fits became frequent. Bromide was of no avail. No history of previous illness nor of any affection in the parents or brothers and sisters was obtained. There was no affection of the mind noted, and he was able to learn quite as well as before. In October, no benefit having occurred, the mother made a tardy admission of a miscarriage and stillbirth following an attack of syphilis in her husband prior to the patient's birth. Iodides were then given with some benefit. Unfortunately they could not be tolerated, but "iodo-starine" was easily taken and effected a complete remission. The case is interesting in view of the absence of the usual accompaniments, both mental and physical, of congenital syphilis of the nervous system, and suggests that a free resort to the Wassermann test in epilepsy arising without apparent cause may help us in carrying out suitable treatment.

M. A. COLLINS.

## Part IV.—Notes and News.

### THE MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

#### ANNUAL MEETING.

THE Seventy-second Annual Meeting of the Association was held at the rooms of the Medical Society of London, 11, Chandos Street, W., on Wednesday and Thursday, July 16th and 17th, 1913, under the presidency of Dr. J. Greig Soutar, and, later, that of Dr. James Chambers.

*There were present:* Drs. T. S. Adair, G. A. Auden, H. M. Baker, J. L. Baskin, F. Beach, C. H. Bond, D. Bower, F. St. J. Bullen, P. E. Campbell, R. B. Campbell, J. Carswell, J. Chambers, G. Clarke, R. H. Cole, M. A. Collins, S. Coupland, W. R. Dawson, H. Devine, H. B. F. Dixon, J. F. Dixon, T. O'C. Donelan, E. L. Dove, A. R. Douglas, T. Drapes, J. H. Earls, F. H. Edwards, F. A. Elkins, J. W. Geddes, S. Gill, R. W. Gilmour, J. R. Gilmour, E. G. Grove, H. E. Haynes, W. D. Higson, R. D. Hotchkis, T. B. Hyslop, G. H. Johnston, R. Jones, J. Keay, A. C. King-Turner, N. T. Kerr, J. R. Lord, R. L. Langdon-Down, H. C. MacBryan, E. D. Macnamara, T. W. McDowall, G. D. McRae, J. Macpherson, E. Mapother, M. E. Martin, W. F. Menzies, C. Mercier, J. Middlemass, W. F. Nelis, H. H. Newington, D. A. V. Nicolson, H. J. Norman, E. S. Pasmore, G. E. Peachell, J. G. P. Phillips, B. Pierce, E. Powell, J. M. Rutherford, G. H. Savage, B. H. Shaw, G. E. Shuttleworth, R. P. Smith, T. W. Smith, J. G. Soutar, T. E. K. Stansfield, R. H. Steen, R. Stewart, S. J. Stewart, H. F. Stilwill, R. J. Stilwill, W. H. B. Stoddart, C. T. Street, E. W. D. Swift, R. W. Thomas, D. G. Thomson, H. C. Thomson, T. S. Tuke, T. D. Turner, F. Watson, E. B. White, J. C. Woods, and others.

*Expressions of regret were received from* Sir Thomas Clouston, Drs. Easterbrook, Havelock, Spence, and Yellowlees.

*Present at the Council Meeting held previously:* Drs. T. S. Adair, D. Bower, R. B. Campbell, J. Chambers, R. H. Cole, M. A. Collins, W. R. Dawson, T. Drapes, H. Hayes Newington, J. Keay, G. D. McRae, W. F. Nelis, J. G. Soutar, and D. G. Thomson.

#### MINUTES.

The minutes of the last annual meeting, having already been printed in the Journal, were taken as read and signed as correct.

LIX.

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## ELECTION OF OFFICERS, COUNCIL, AND STANDING COMMITTEES.

The President nominated the following four gentlemen to act as scrutineers for this election: Dr. McDowall, Dr. Bower, Dr. McBryan and Dr. Campbell. They reported that the officers as proposed had been unanimously elected.

The PRESIDENT said that members had before them the names of those who formed the Council and Officers for 1913-14, including the representative members of Council and the names of the examiners for the year, all of whom had now been elected. The meeting would proceed to elect auditors from among those not on the Council. Dr. Percy Smith and Dr. Langdon Down had filled the office, and were eligible for re-election.

Dr. PERCY SMITH pointed out that the custom was for the senior auditor to retire. He had served in the office two years, and he placed his resignation in the hands of the Association.

The PRESIDENT said there was no rule against Dr. Percy Smith being re-elected if he would be willing to serve.

Dr. PERCY SMITH said he would be willing to serve again if it proved to be the wish of the Association.

Dr. BOWER proposed and Dr. HAYNES seconded the re-election of Dr. Percy Smith as auditor.

Carried.

## ELECTION OF STANDING COMMITTEES.

The PRESIDENT said members had before them the list of those who had been recommended by the Nominations Committee.

Dr. HAYES NEWINGTON proposed that the Parliamentary Committee, as set forth in the agenda, be re-elected, with the addition of the name of Dr. Soutar, whose services had been always most valuable.

Dr. DRAPES said he had much pleasure in seconding it.

Carried.

## EDUCATIONAL COMMITTEE.

Dr. DRAPES proposed, with pleasure, the re-election of this Committee, and that Dr. Soutar's name be added to this also.

Dr. BOWER seconded.

Carried.

## REPORTS OF COUNCIL, OFFICERS, AND COMMITTEE.

Dr. COLLINS read the Report of the Council.

## REPORT OF THE COUNCIL.

The number of members—ordinary, honorary, and corresponding—as shown in the list of names published in the *Journal of Mental Science* for January, 1913, was 750, as compared with 743 in the corresponding number of the Journal for 1912. The difference is accounted for by an increase of 6 in the ordinary members and 1 in the honorary members.

The following shows the membership for the past decade:

Members.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
Ordinary . . .	597	620	641	638	645	652	673	680	690	696
Honorary . . .	36	35	32	32	30	29	32	33	34	35
Corresponding . .	12	15	15	15	15	15	17	17	19	19
Total . . .	645	670	688	685	690	696	722	730	743	750

The increase is therefore 105, of whom 99 are ordinary members.

The number of new members elected and registered during the year was 39—a decrease of 8 on the previous year.

Sixteen ordinary members resigned, and 6 names were removed from the register. Two honorary members were elected.

The Council regrets to have to record the deaths of one honorary member—Dr. E. M. Courtenay—and of ten ordinary members.

The usual quarterly meetings were held in November, February, and May. That in February was held at Darenth Asylum by the courtesy of Dr. A. Rotherham, when an extremely interesting day was spent, and members had the advantage of seeing the great possibilities in dealing with the feeble-minded and imbecile. An interesting paper on the history of the Darenth Colony was read by Dr. F. O. Spensley. The thanks of the Association are due to Dr. Rotherham for his generous hospitality.

Thanks are due to Dr. Soutar for a very successful and enjoyable annual meeting held at Gloucester, and to the Corporation of Gloucester, who kindly placed the Guildhall at our disposal, and to many others who so kindly helped in our entertainment.

The Special Committee on the Status of A.M.O. and teaching of Psychiatry in this country has met five times, and presents an interim report.

The Parliamentary Committee has held regular meetings during the year, and the Special Sub-Committee has continued to watch the progress of the Mental Deficiency Bill. Members from Scotland and Ireland have been added to this Sub-Committee, and the need of extending the Bill to Ireland was specially called to the notice of Mr. Birrell and the Home Secretary.

On the Committee's recommendation the Association appointed a deputation to approach the Home Secretary and urge the need of removing criminal lunatics from county asylums, and a reply has been received regretting he cannot take any action. Dr. Beveridge Spence resigned the chairmanship of this Committee, and Dr. Wolsey Lewis was appointed chairman, and Dr. Cole secretary.

The Educational Committee has met regularly, and presents a report which, with that of the Parliamentary and Library Committees, has been printed and circulated. Three additional examiners (two A.M.Os.) have been appointed for the Preliminary Nursing Examination.

The Journal continues to be much appreciated, and the sale continues to be very satisfactory.

Thirteen Divisional Meetings have been held, with good attendances. The membership of the divisions, as reported to the May Council meeting, was:

South-Eastern . . . . .	241
Northern and Midland . . . . .	146
South-Western . . . . .	111
Scottish . . . . .	95
Irish . . . . .	60

The Gaskell Prize for 1911 was awarded to Dr. William Boyd, of Winwick, legal opinion being taken as to his eligibility. The Bronze Medal was not awarded.

The entries for the Nursing Certificate examinations have been as follows: *Final*—324 in November; 314 in May. In November 16 withdrew, 164 successful; in May 15 withdrew, 179 successful. *Preliminary*—240 in November; 1152 in May. In November 17 withdrew, 144 successful; in May 71 withdrew, 556 successful.

The Council voted in May a donation of £10 to the Epsom College Benevolent Fund.

Thanks are due to the Registrar and Divisional Secretaries for the work so willingly given to the Association.

The President, Dr. Soutar, has presided over the meetings of the Association with dignity and courtesy.

The PRESIDENT said this Report of the Council had been prepared by Dr. Collins, and constituted an excellent *résumé* of the work of the year, and for it the Association would feel grateful to the Honorary General Secretary.

Dr. DOUGLAS said he had much pleasure in proposing that the Report be received and adopted.

# THE MEDICO-PSYCHOLOGICAL ASSOCIATION.—For the Year 1912.

## REVENUE ACCOUNT—January 1st to December 31st, 1912.

1911.	Dr.	Expenditure.	Cr.	1911.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
476 5 9	To Journal—Printing, Publishing, Engraving, Advertising, and Postage ...	449 7 8	...	49 11 3
313 0 4	Examinations, Association Prizes, and Clerical Assistance to Registrar ...	360 0 6	...	310 0 0
44 5 1	Petty Disbursements, Stationery, Postages, etc. ...	47 14 2	...	37 4 2
194 14 7	Annual, General and Divisional Meetings ...	183 9 4	...	36 15 4
61 0 0	Rent of Premises at 11, Chandos Street, care of Office, etc. ...	83 14 8	...	18 1 5
6 6 0	Audit and Clerical Assistance ...	220 15 5	...	23 17 8
89 15 5	Miscellaneous Account ...	15 11 6	...	34 13 0
0 17 0	Library Account ...	...	...	458 0 6
1186 4 8	Balance ...	1377 5 3	...	492 13 6
280 9 8		208 0 9	...	753 18 0
1466 13 10		£1585 6 0	...	...

## BALANCE-SHEET—31st December, 1912.

1911.		1911.	
£ s. d.	£ s. d.	Assets.	Liabilities.
0 19 6	To Journal Account, balance ...	By Lloyd's Bank—Bankers ...	To Journal Account, balance ...
31 13 0	Examinations Account, balance ...	Stocks value at this date: ...	Examinations Account, balance ...
12 7 0	Petty Disbursements Account, balance ...	New Zealand, 3½ per cent. ...	Petty Disbursements Account, balance ...
24 6 5	Meetings Account, balance ...	Do. (Hack Tuke Memorial) ...	Meetings Account, balance ...
16 10 0	Rent, Account ...	Victoria, 3 per cent. ...	Rent, Account ...
20 12 1	Miscellaneous ...	Do. 3½ per cent. ...	Miscellaneous ...
41 19 4	Library ...	Manchester Corporation, 3 per cent. ...	Library ...
148 7 4	Gaskell Fund ...	New South Wales, 3½ per cent. ...	Gaskell Fund ...
2012 0 8	Balance at 1st January ...	Midland Railway Preference, 2½ per cent. ...	Balance at 1st January ...
280 9 8	Add: Balance of Revenue Account ...	New South Wales, 3½ per cent. ...	Add: Balance of Revenue Account ...
2312 10 4		Midland Railway Preference 2½ per cent. ...	
4 10 1	Decrease in Value of Stocks ...	Sales Account, balance ...	Decrease in Value of Stocks ...
33 12 0	Subscriptions written off ...	Subscriptions Account, balance ...	Subscriptions written off ...
38 2 1		Fees Account, balance ...	
2374 8 3		...	...
£4422 15 7		...	...

(Signed) W. HAYES NEWINGTON, Treasurer.  
(Signed) WOODINGTON & BOLT, C.A.

R. L. LANGDON DOWN } AUDITORS.  
R. PERCY SMITH

Dr. PERCY SMITH seconded, and it was carried.

The PRESIDENT invited members to make any remarks on the Report. There being no response, he put it to the meeting, and it was unanimously adopted.

#### TREASURER'S REPORT.

Dr. HAYES NEWINGTON (Treasurer), in submitting his report, said it was already in the hands of members, having been recently sent round. Generally, he was in a position to report the continued prosperity of the Association. With regard to particular items which might call for remark, most of those questions would be made clear in the Report of the auditors; but if there were any points which members wished to ask him independently he would be glad to answer them.

Dr. D. G. THOMSON moved that the Treasurer's Report be received and adopted.

Dr. W. DAWSON seconded.

The PRESIDENT said it was a very satisfactory Report. It was pleasant to find that Dr. Newington was always able to bring forward a balance at the end of the year.

Carried.

#### GASKELL MEMORIAL FUND.

STATEMENT BROUGHT ON FROM *Journal of Mental Science*, 1911, p. 729.

1911.	£	s.	d.	1911.	£	s.	d.
July 13th—				July 1st, Balance	83	17	11
Dr. Porter Phillips				Dividends	27	10	5
(Prize) ...	45	0	0				
Dr. Moll (additional							
prize) ...	15	0	0				
Examiners' Fees ...	4	4	0				
Gold Medal ...	5	5	0				
1912.				1912.			
Dr. Boyd (Prize) ...	45	0	0	Dividends ...	27	10	5
Examiners' Fees ...	4	4	0	Dividends ...	27	10	5
Medals ...	6	11	6				
1913.				1913.			
Dr. Rees Thomas (Prize)	45	0	0	Dividends ...	27	10	5
Examiners' Fees ...	4	4	0	Dividends ...	22	15	0
Gold Medal ...	5	5	0				
Sept. 30th, Balance	37	1	1				
	<u>£216</u>	<u>14</u>	<u>7</u>	Sept. 30th, 1913.	<u>£216</u>	<u>14</u>	<u>7</u>

H. HAYES NEWINGTON, TREASURER.

#### REPORT OF THE EDITORS.

The Editors beg to report that there has been no material change in the production of the Journal during the past year.

They wish to take this opportunity of thanking the Royal Society of Medicine for courteous permission to publish the Transactions of the Psychiatry Section. They feel that the readers of the Journal are to be congratulated on the appearance of contributions by Dr. Henry Maudsley and Sir George Savage.

JAMES CHAMBERS.  
JOHN R. LORD.  
LEWIS C. BRUCE.  
THOS. DRAPES.

Dr. DRAPES read the Editors' Report, and proposed that it be adopted.

Dr. FLETCHER BEACH seconded.

The PRESIDENT said it was a very brief report, but was sent in by those who had done a very great deal of work for the Association, work which all members thoroughly appreciated.

Carried.

#### REPORT OF THE AUDITORS.

We beg to report that we have examined the Treasurer's accounts and vouchers for payments made on behalf of the Association, and find them in perfect order.

An amount of £300 has been invested in £462 Midland Railway 2½ per cent. Preference Stock during the year.

We may draw attention to the fact that there has been an increase of nearly £120 in the receipts from fees for examinations. On the other hand the expenditure has been greater owing to the large amount of printing connected with Parliamentary and other committee work, to the increase of rent, and the cost of furnishing the additional room.

We regret to see that £30 9s. 0d. has had to be written off for non-payment of subscriptions, and that a further amount of £194 5s. 0d. was outstanding on account of subscriptions in arrear at the end of the year. This amount has steadily increased in the last three years to the largest sum hitherto reached, and is more than 25 per cent. of the annual subscription income of the Association.

We wish to express our fullest satisfaction with the admirable system of accounts adopted by the Treasurer, and our recognition of his arduous and increasing work, for which the Association owe him a deep debt of gratitude.

R. PERCY SMITH }  
R. LANGDON-DOWN } *Auditors.*

Dr. PERCY SMITH read the Auditors' Report, and moved that it be adopted. He added that the auditors felt very strongly that there ought not to be £194 5s. remaining at the end of the year for unpaid subscriptions. (Hear, hear.) Having such a big item on that account hampered the work of the Association, and, of course, it gave the Treasurer an enormous amount of work. He thought that those members who neglected to pay regularly might usefully take the hint that it threw a great deal of extra work on the Honorary Treasurer.

The PRESIDENT said he was sure the meeting was in full agreement with what Dr. Percy Smith had just said; it was hard on the Treasurer that he should have all the additional work thrown on him which was implied in the efforts to get those arrears in. The explanation which Dr. Percy Smith gave of the large amount in the balance-sheet under the head "Miscellaneous Charges" would be fully acceptable to the meeting. It happened that during the past year there had been items of expenditure which were not likely to recur. A very large amount of printing had been required for the Special Committee, and for the other Committees which had held meetings throughout the year. He would be glad to hear any comments upon the Auditors' report, and in connection with that the Treasurer could give any additional information which the meeting might consider advisable.

Dr. BOWER said that, without wishing to dictate to the Editors, he would like to suggest that they insert into the Journal a very short paragraph calling attention to the remarks which had just been made about the arrears of subscription. It was true it would appear in the Report, but those who neglected to send their subscriptions might also possibly omit to read that report.

Dr. HAYES NEWINGTON said he felt much obliged to Dr. Bower for the suggestion he had made, and also for the words uttered by Dr. Percy Smith. Those unpaid subscriptions were a terrible nuisance to himself and his daughter, who helped him a great deal. In fact, the task of dunning people three or four times a year was mostly carried out by her. But it was a serious trouble, and caused so much irritation that it was advisable to try and reduce it. It took them both months, perhaps, before they could feel quite sure that the subscription account was right. Some people paid ahead of time, which, of course, was laudable; some got elected one year but did not pay until the next. The system adopted of looking after the payments was really a ledger one in essence, and anything which was outstanding at the end of the year caused infinite calculation, and a considerable risk of the accounts being something out at the end of the year, and, of course, someone had to bear it. As a mere matter of courtesy, if he might be allowed so

to put it, a little more punctuality in payment might not be amiss; and if members would only instruct their bankers, as was now done in so many similar cases, to remit the subscription at the beginning of each year, there would be much more accuracy and far less trouble. He did not wish to complain, but it became rather a nuisance to have to carry over some 193 guineas. He would assure members that, sooner or later, by far the greater part of the money was paid, and the loss was due to the items which had to be written off. But he believed it was not from wilful default; members forgot to pay for several years, then suddenly woke up to the fact, and sent a payment to the amount of seven or eight guineas. That had occurred once or twice. In some cases members died in the course of the year without having paid, and one could not very well make an application against their estate. If people would pay early, and by cheque, it would be a great convenience to the Treasurer and to all.

The report, having been duly seconded, was carried.

#### ANNUAL REPORT OF THE EDUCATIONAL COMMITTEE, 1912-1913.

The Educational Committee has held four meetings during the past year.

In July, 1912, eleven candidates entered for the Professional Certificate Examination and ten were successful.

The Gaskell Prize has been gained by Dr. William Boyd, of Winwick. No award has been made in the case of the Bronze Medal.

The final draft of the Nursing Rules and Regulations was submitted to the Annual Meeting in July last and approved.

The Registrar reports that in November, 1912, 233 candidates presented themselves for the Preliminary Examination of the Nursing Certificate and 144 passed, and for the Final Examination there were 308 candidates, of which 164 obtained the Certificate.

The recent May examinations have shown a record as regards entries, *vis.*, 1152 entries for the Preliminary, and 314 for the Final Examination. The results have not yet come to hand.

In reply to applications from the Transvaal requesting that Taal should be recognised for examination purposes, it has been decided by this Committee that examinations shall only be held in the English language.

During the year the Educational Committee has had before it several important matters relating to the Nursing Examination and the Gaskell Prize. Also it has received and dealt with the usual applications of institutions desirous of being recognised for the training of nurses.

During the year the Educational Committee has learnt with pleasure that Cambridge University has now been added to the number of universities conferring a diploma in Psychological Medicine.

MAURICE CRAIG, *Chairman*.

J. G. PORTER PHILLIPS, *Secretary*.

Dr. COLLINS read the report and moved its adoption.

Dr. CAMPBELL seconded.

The PRESIDENT asked for any remarks; none being offered, the report was put to the meeting and carried.

#### ANNUAL REPORT OF THE PARLIAMENTARY COMMITTEE, 1912-13.

Your Committee has met four times. Its deliberations have been mainly concerned with the proposed legislation for the mentally deficient.

It views with satisfaction the Mental Deficiency Bill now before Parliament, in which are incorporated many of the recommendations of the Association, and it considers the present Bill an improvement on the previous one.

It expresses approval of the resolutions of your Select Committee specially appointed to watch the Mental Deficiency Bill, *vis.*:

- (1) The inadequacy of the medical representation on the Board of Control.
- (2) The undesirability of inordinate powers which may be given to the Administrative Committee of the Board.
- (3) The inadequacy of the means of discharge.



(4) The necessity of Treasury grant for the existing voluntary idiots establishments.

(5) The need of Treasury grant to make provision for research.

It hopes that the Bill for England will be amended in Committee accordingly, and that the Government will provide time to place it on the Statute Book.

Although a separate Bill has been introduced for Scotland, your Committee regrets that no provision has been made for Ireland, and it hopes that in the absence of a separate Bill the strong representations that have been made for a special clause affecting Ireland, in the English Bill, may lead to some beneficial result. With the Council's sanction a sub-committee has been formed both in Scotland and Ireland to assist your Select Committee in securing desirable amendments.

The Elementary Education (Defective and Epileptic Children) Amendment Bill, being intimately associated with the Mental Deficiency Bill, has, with the Council's approval, been referred to your Select Committee.

The Nurses' Registration Bill, and the two Asylums Officers' Employment, etc., Amending Bills, have received attention.

The undesirability of receiving criminal lunatics in county asylums has been fully considered by a Special Committee, and strong representations on the subject have been made to the Home Secretary, who has replied that he regrets that he is unable to introduce any legislation on this subject at present.

H. WOLSELEY-LEWIS, *Chairman*.

R. H. COLE, *Secretary*.

Dr. HYSLOP, in the absence of the Chairman of the Parliamentary Committee, moved the reception and adoption of the report of that Committee. Members had before them in print copies of the report, and it was merely necessary to say a few words in connection with some of the items in it. In connection with the Mental Deficiency Bill, he hoped all members felt relieved and pleased to see that Standing Committee B in the House of Commons had handed up the amended Bill to the House on the previous night, therefore he hoped that in due course it would be passed through the Third Reading and so become law. (Applause.) In reference to this Bill, it had probably been noticed that the amendments had fallen into line practically with all the recommendations which had been made by this Association. (Hear, hear.) There was no doubt, and he hoped the Sub-Committee would be given credit for the fact, that there had been a great deal of work to do in this connection. First, the Committee of the Association had to obtain the co-operation of various members of the House. And, fortunately, they were helped very materially by the Unionist Reform Committee, which was composed of members who had to deal with various Bills in connection with reform. Those gentlemen fell at once into line with the recommendations which were urged by this Association and voiced by the Sub-Committee, and, with the most able support of Mr. Leslie Scott and others, those recommendations were placed before Standing Committee B, and, without much difficulty, were passed. The next problem concerned the enlightenment of the public, which proved to be no small task. The Committee had much to do not only with the general public, but also with the Press. It would probably have been noticed by members how the Press gradually veered round from an attitude of most intense opposition to one of complete, or almost complete conformity with, and approval of the Bill. The report of the Parliamentary Committee said—"It expresses approval of the Resolutions of your Select Committee specially appointed to watch the Mental Deficiency Bill, viz., the inadequacy of the medical representation on the Board of Control." There was still room for service to be done in that connection, and possibly there might yet be some amendments in that direction. He did not doubt that when the Bill came up for the third reading, a considerable amount of opposition would be manifested in regard to it, so much opposition, indeed, that it might tend to retard progress. Item No. 2 in the report said, "The undesirability of inordinate powers which may be given to the Administrative Committee of the Board." Here, again, it was not apparently too late to urge certain reforms which the Sub-Committee had in view. The third point in the report was "The inadequacy of the means of discharge." In connection with this, it was felt that the safeguarding of the public and the means of discharge as provided in the Bill were insufficient, and this matter was considered most carefully by the Association's

Select Committee, and also by the Commissioners in Lunacy and by others. He believed he was at liberty to say that the Commissioners in Lunacy had a conference with the Home Secretary, and that their provisions with regard to discharge were fallen into line with by the Home Secretary; so that matter had been righted. The fourth point in the Report was "The necessity of Treasury grant for the existing voluntary idiots establishments." This latter point had been put forward very ably by the National Association for the Feeble-Minded, and there was a possibility that all their claims and desires might ultimately be met. The fifth point was "The need of Treasury grant to make provision for research." Here a very strong representation was made by the doctors of the Special Committee, and it was supported by both the Unionist Reform Committee and by Mr. McKenna himself. It was fitting in this connection to accord thanks to those medical gentlemen who gave it their entire support. He did not refer to members of the Medico-Psychological Association, but to members of the medical profession generally, who not only wrote a most powerful letter in the *Times*, but he believed he was right in saying that they interviewed Mr. McKenna, who fell into line with their recommendations that the need for the prosecution of scientific research was almost paramount. So far as the Scottish Bill was concerned, that was now in Committee, and a considerable amount of discussion was likely to ensue as to what was to be the constitution of the Board, etc. Whether the Bill for Scotland had extended its scope a little beyond what passed through Parliament was a matter for subsequent consideration. So far as Ireland was concerned, he thought it was felt generally, as he stated at Gloucester at the annual meeting last year, that pending legislation with regard to Ireland was quite sufficient to justify the opinion of the House that for the present they could not consider any Mental Deficiency Bill with regard to Ireland, at any rate not for incorporation in the English Bill. A paragraph in the Report read: "The Elementary Education (Defective and Epileptic Children) Amendment Bill, being intimately associated with the Mental Deficiency Bill, has, with the Council's approval, been referred to your Select Committee." As was known to the meeting, the debate on the second reading had been adjourned. When it would be resumed he was not in a position to say. Mr. Goldsmith, in the House, advocated that it should be adjourned for three months, so that the constitution of local authorities should be further defined. What would happen in regard to that he could not at present say. Members of the Special Committee felt that to include seniles would mean so much debate that it would jeopardise the passing of the Mental Deficiency Bill. Therefore they were content, in order to get this Bill through, to leave the matter in that way. And apparently, from what Mr. McKenna said, the feeling of the Committee on that matter was perfectly correct. There was still some work remaining to be done in connection with this Bill, and the Association might be sure that the Committee would be always on guard. The Committee had always had representatives present through every meeting in the House of Commons, through the sittings of the Committee, and their work had been simply indefatigable. As chairman of that Sub-Committee of the Parliamentary Committee he wished to express his thanks, not to individual members of the Committee, but to the Committee as a whole, for the enormous amount of work they had done. He did not intend to weary the meeting by reading out the various amendments in connection with this Bill, but would simply remark that they had been gone over clause by clause. They had followed out every word which had been mentioned in the House and in other committees, so as to leave no stone unturned. He had pleasure in moving the adoption of the Report of the Parliamentary Committee.

Dr. HAYES NEWINGTON seconded Dr. Hyslop's proposal. It afforded him an opportunity of expressing the thanks of the Committee, and he thought he could safely say, on the part of the whole Association, to the mover of this resolution, Dr. Hyslop. Naturally, that gentleman, in moving the adoption of the Report, could not speak of himself, but he, the speaker, knew that if the Chairman of the Parliamentary Committee had been present now, he would have been the first to add much in praise of Dr. Hyslop and his work in this connection. Nobody, except those who had worked on the Bill, and worked so indefatigably, knew what that body had done for the Association and for the advancement and good of this measure. Dr. Hyslop had done the specialty a very good service in personally, as it were, introducing the Association to the Members of the House of Commons.

If it had not been for Dr. Hyslop's adroitness, and the acceptance he had met with at the hands of these Members, they would not have gone half so far. He had slept with one eye on the Bill, and nothing had passed him; and those who had laboured with him knew the amount of work which had been entailed in watching the Bill. He wished to say deliberately that the Association owed an enormous debt of gratitude to Dr. Hyslop, and no doubt that would find proper expression in due time. Then with regard to one or two points in this Bill, he would first speak in regard to the inadequacy of the medical representation on the Board of Control. That was a standing grievance, and it could not now be hoped to remedy it; but if by any chance the measure were to be held over until another session, he would hope that the Association would start a campaign, as well it might with the knowledge of the circumstances, in favour of increasing the medical element on the Commission. It was felt that as time went on the need of that would be increasingly evident. There would be a danger that the necessary medical guidance would be swamped by the appointment of people who were not medical men, and who were not skilled in psychiatry. Paragraph 2 of the Report pointed out the undesirability of inordinate powers which might be given to the Administrative Committee of the Board. He was thankful to say that the danger on that point had been, to a great extent, averted. It was proposed that inside the Commission itself there should be appointed a secondary administrative committee, which might conceivably be the head of the dog, instead of being the tail; it might be going to control everything, and enormous and undefined powers of an administrative nature might be given to this Committee. In dealing with both lunacy and mental deficiency, such a condition of affairs would be most undesirable, because members of the Association knew that there was no part of the dealing with the insane which was not, in one sense or another, administrative; and to have cut off from their skilled Commissioners a separate body planted by their side, would, he thought, lead to terrible disaster. But partly, if not indeed wholly, on account of the representations made through Dr. Hyslop to the Standing Committee, the work of this Administrative Committee had been confined to the mental deficiency side, and the lunacy side had been excepted from the operations of this Committee, and he believed he was right in saying that, so far, there had been a safeguard placed upon this extreme danger. There only remained for him to mention a technical point. This special committee was originally appointed by the Council, and it was chosen from among the Parliamentary Committee and from that other Committee which had to watch the question of the mental inspection of school-children, which latter body was now defunct. As a matter of form it should be re-appointed by the Council, because, technically, it was moribund at the end of the year; at all events that was the opinion. Therefore after this resolution had been passed, he intended to move another, on behalf of the Association, asking this Committee to continue its services for the present.

Dr. DOUGLAS TURNER said he would like to say a word on behalf of the institutions he represented. They would have been placed in a very awkward position indeed in several ways but for the kindness of Dr. Hyslop and his colleagues, and the kind and friendly way in which he gave advice. That had had the best possible effect in clearing the ground of the difficulties which had been complained of, and he had great pleasure in supporting the motion.

The PRESIDENT said the Association had been favoured with a very interesting statement from Dr. Hyslop and Dr. Newington in support of this very important Report now submitted. No men were better able to afford information on any and every point raised than those two gentlemen. Their work in this connection had been Herculean; they had lost no opportunity of pushing their opinions and the wishes and desires of the Association in this matter on the Committee and those interested, and members could very heartily congratulate them on the very large measure of success they had attained under difficult conditions. The Report was now before the meeting, and if there were any comments which members wished to make, he would be glad to hear them. If not, he would put the resolution that the Report be received and adopted.

Carried.

The PRESIDENT said Dr. Hyslop had referred, in the course of his remarks, to the very great assistance which had been rendered in this matter by, amongst others, Mr. Leslie Scott. Dr. Hyslop and Dr. Hayes Newington, who knew what

he had done better than did any one else, had suggested to the Council that some notice should be taken of this very valuable help. Accordingly, a letter had been prepared by the Council, and he would read it for the approval of the meeting: "To Leslie Scott, Esq., K.C., M.P. : Sir,—The Medico-Psychological Association of Great Britain and Ireland, in annual meeting assembled, beg to offer you their sincere thanks for the interest you have taken in the medical aspects of the Mental Deficiency Bill, and to express to you their sense of appreciation of the kind way in which you have received their representatives."

Carried.

Continuing, he said there was another letter, which it was convenient to take at this time. It was an answer to a letter which was sent to the Chief Secretary for Ireland from the last quarterly meeting. It was in reference to the position of their Irish Colleagues in regard to pensions in the event of a Home Rule Bill for Ireland being carried. A letter of inquiry was addressed to the Chief Secretary for Ireland. The reply ran: "I am directed by the Chief Secretary to acknowledge the receipt of your letter of the 2nd instant, inquiring on behalf of the Medico-Psychological Association of Great Britain and Ireland whether, in the event of a Home Rule Bill becoming law, the Irish Parliament will have power to alter the position of the existing asylum officials with respect to their title to pensions under the Asylum Officers' Superannuation Act of 1909. In reply, I am to say that legislation with respect to superannuation of officers of local authorities will not be outside the powers of the Irish Parliament." The Council had considered that letter, and decided that at present they could not carry the matter further.

Dr. NEWINGTON now moved that this special committee be requested to continue its work of watching for the next year. That Committee did not in any way wish to rival, or to aim at rivalling, the Parliamentary Committee. There were only certain things which had been taken from the ordinary work of the Parliamentary Committee and committed to it. Obviously the work of the Parliamentary Committee was of wide scope, and that Committee contained the legal brains of the Association, and no doubt its largeness prevented its efficient action on a particular point in the haste and hurry of a Bill passing through Parliament. It was necessary to have a certain number of members on whom dependence could be placed for meeting and consulting, and it was therefore considered best to appoint a smaller committee. Accordingly, he moved that it be continued during the year.

Dr. STEWART seconded, and it was carried.

#### MOTION INVOLVING EXPENDITURE OF FUNDS.

The PRESIDENT said he wished, with the permission of the meeting, to alter the order of the items on the agenda, namely, by taking (f) motions involving expenditure of funds. A matter would arise in connection with the report of the Library Committee which concerned the expenditure of funds, before the Report could be dealt with. The proposal was that a grant of £25 annually be considered for the Library Committee.

Dr. COLLINS read the Report of the Library Committee.

The PRESIDENT said that in order to regularise this it was necessary that a motion involving the expenditure of the funds of the Association exceeding £25 should come up at the annual meeting. Therefore he asked for the adoption of the Report of the Library Committee except for the expenditure. £20 was asked for by the Library Committee on this occasion, but it was suggested that an amount not exceeding £25 a year be granted to the Library Committee, the amount for any one year to be decided at each annual meeting. The £20 could be voted at this meeting if the report of the Library Committee be received and adopted.

#### ANNUAL REPORT OF THE LIBRARY COMMITTEE, 1912-1913.

During the past year, the bookcases in the Library have been provided with glass doors, and a similar alteration has been made in the cupboards in the new room recently acquired by the Association.

A considerable number of new books have been added to the Library, the lists

being published from time to time in the Journal. The number of members availing themselves of the facilities for borrowing books is steadily increasing, and the scheme for distributing the foreign journals continues to work well.

The Committee are of opinion that the utility of the Library is entirely dependent upon its being kept up-to-date, and that this object can only be achieved by the regular expenditure of a considerable sum of money upon new books. It has been proposed that application should be made at each Annual Meeting of the Association for a suitable grant, and the principle has been approved by the Council of the Association. The Committee therefore desire to apply for a grant of £20 for the expenses of the coming year.

BERNARD HART,  
*Hon. Secretary.*

Dr. COLLINS proposed the reception of the Library Committee's Report.

Dr. FLETCHER BEACH seconded.

Dr. HAYES NEWINGTON explained that a suggestion was made by the Secretary of the Committee, Dr. Bernard Hart, that the Association should be allowed to spend £25 each year on the purchase of books for the Library. He, the speaker, took a little exception to that, and proposed that the application should be renewed every year, so that any annual meeting should have the opportunity of withholding the amount if it considered that the money was not properly spent. He felt that, as Treasurer, he was bound to object to any settled expenditure from year to year, unless there was an opportunity of checking the disposition of the money.

The PRESIDENT said the Treasurer approved of the £20 being granted on this occasion.

Dr. BOWER suggested that it would be well to submit motion (*f*) to the meeting first, then the present application could be dealt with.

The PRESIDENT agreed, and pointed out that the proposal on this occasion was to grant £20.

Dr. COLLINS proposed that a grant of £25 be considered annually towards the Library.

Dr. BOWER seconded.

Carried.

The PRESIDENT said the Report of the Library Committee would now be taken. The proposal was that on this occasion the Association grant them £20.

Carried.

#### COMMITTEE OF STATUS OF BRITISH PSYCHIATRY AND OF MEDICAL OFFICERS:

##### INTERIM REPORT.

The Committee of the Medico-Psychological Association, appointed on November 20th, 1911, in order to "consider the status of psychiatry as a profession in Great Britain and Ireland and the reforms necessary in the education and conditions of service of assistant medical officers," regrets that it is not yet in a position to submit a final report to the Association.

The Committee has met on five occasions. Several of its members have made inquiries into the conditions obtaining in other countries, in particular, France, Germany, Italy and the United States of America, and much of the information so obtained has been published in the *Journal of Mental Science*.

Circulars requesting information as to the conditions of asylum service in the British Isles were sent to the medical superintendents of the public asylums and hospitals for the insane. The replies obtained have been summarised in the table accompanying this report. Additional information has been obtained from individual members of our Association and from letters and articles which have been published at various times in the medical journals.

In this Interim Report the Committee confine themselves to enumerating the conditions and circumstances which seem to them to affect injuriously the position and practice of psychiatry in this country.

These defects fall into three groups, which, though separately dealt with, are in reality closely connected with one another. The three groups are:

(1) Absence of proper provision for the early treatment of incipient and undeveloped cases of mental disorder.

(2) The few facilities available for the study of psychiatry and for research.

(3) The unsatisfactory position of assistant medical officers in respect to professional status, the prospects of a career and the conditions of asylum service.

Side by side with these defects is placed a brief account of the methods adopted in other countries to deal with these and similar problems.

#### DEFECTS.

(1) *Absence of proper provision for the early treatment of incipient and undeveloped cases of mental disorder.*

(a) Broadly speaking general hospitals do not make any provision for the treatment of mental diseases. In a few instances there are out-patient departments, but, although there are observation wards at Edinburgh, Glasgow and Dundee, no sufficient provision is made in connection with any of the general hospitals for the efficient investigation and treatment of cases of mental disorder. Psychiatry is thus divorced from ordinary medical education and practice.

(b) Nowhere in Great Britain can a poor person obtain treatment voluntarily in a public asylum.

The county and borough asylums in England and the district and parochial asylums of Scotland are not permitted to receive voluntary boarders. Expert treatment is therefore unattainable by the poor until the illness has become so pronounced that the patient can be certified as insane.

(c) The present system, which compels all persons, except those able to pay adequately for their maintenance, to apply to the Poor Law authorities in order to secure treatment, is unsatisfactory and unjust. In doubtful and undeveloped cases temporary care can be given only in workhouses or Poor Law infirmaries, which, with very few exceptions, lack proper facilities for treatment.

A system which artificially creates paupers in order to obtain medical treatment necessarily acts as a deterrent, so that too frequently there is serious and even disastrous delay.

(d) In the case of patients who can pay for their maintenance the civil disability incurred by certification often leads to treatment being delayed until permanent damage is done, or to more or less efficient treatment being obtained only in defiance of the Lunacy laws.

The valuable provision which permits of the reception of voluntary boarders in

#### METHODS ADOPTED IN OTHER COUNTRIES.

In several European countries and in America special clinics for the treatment of early mental disorder exist in almost every large town. These clinics are well equipped with all modern means for diagnosis and treatment. In some cases special wards are attached to the general hospitals.

In others, as in Berlin, separate pavilions are devoted to nervous and mental diseases, and form an integral part of the hospital. There are beds for selected in-patients, one out-patient department, clinical and pathological laboratories, and every facility for examination and treatment. In such cities it is the established custom for patients suffering in mind to come to the general hospital for treatment, in the same way as if suffering from some bodily ailment. The great majority of patients come voluntarily, although the clinic is used for persons legally detained pending further observation.

In Germany the public asylums also receive voluntary patients, provided the physician in charge certifies that the case can suitably remain on this footing.

In America, the voluntary system suffices for securing treatment in the special departments attached to general hospitals, although in some States a patient may be detained for a week on the application of a medical man or a policeman.

licensed houses and in registered hospitals is often rendered practically useless by the right accorded to the boarder to terminate residence on so short a notice as twenty-four hours.

*II. The few facilities available for the study of psychiatry and for research.*

(a) Psychiatry as a branch of medicine is in a decidedly inferior position to practically every other branch in the lack of educational facilities, and in the absence of any career for those who desire to undertake scientific work in it.

(b) Few centres for the organised teaching of psychiatry exist. The equipment of many of these leaves much to be desired. The number of post-graduate students is few, as there is little inducement given (*vide infra*).

This is the more serious because the attention given to mental diseases before qualification is much less than that given in many other countries.

Owing to the absence of clinics the medical student has no opportunity of observing borderland or undeveloped cases.

(c) Few asylums possess laboratories properly equipped and staffed. Some that exist are without direct relation to centres of medical education, and are not easily accessible to students.

In England the co-operation of neighbouring asylums for the purpose of establishing laboratories is beset with many difficulties.

(d) Research is dependent upon the enthusiasm of individual workers, who receive little inducement or reward for their labours.

*III. The unsatisfactory position of assistant medical officers in respect to professional status, prospects of a career, and conditions of service.*

*(1) Methods of making appointments.*

(a) Appointments are made by lay-committees, which, though genuinely desirous to appoint the best candidate, are in most cases without expert advice, and without adequate knowledge of the factors involved. The results are therefore generally haphazard in character, often dependent upon influence or personal considerations, and they frequently bear but little relation to the actual claims and qualifications of the candidates.

As these appointments are made by a large number of independent authorities there can be no general standard of

The teaching of psychiatry forms an integral part of the curriculum of the universities (France, Germany). Clinics, in close relation with the University and with the general hospitals, exist in every university town. They are efficiently equipped and staffed, and complete courses for undergraduate and post-graduate instruction are arranged. A laboratory is attached to every clinic, and there are ample facilities for pathological, psychological and clinical research. In Germany a movement is being encouraged whereby medical officers of asylums may obtain leave to attend post-graduate courses every three or four years. Many asylum committees have met this proposal in a generous spirit, and money has been granted to defray the expenses connected therewith. To assist this movement it has been suggested that an interchange of doctors between clinics and asylums should be arranged, the time spent in the clinic to count as time in the service.

*In Germany* a satisfactory examination in psychiatry has to be passed in order to obtain a degree in medicine.

Appointments to the asylum service are made without further training or examination, but an assistant physician receives a higher initial salary if he can show that he has had post-graduate training in a clinic. No further test in psychiatry is required for promotion, but medical officers are appointed in the first place for a probationary period of one to three years, and they can only become members of the regular staff if their work has been satisfactory.

requirement or qualification for candidates.

(b) With comparatively few exceptions a junior medical officer obtains promotion only in the asylum where he begins his work, and in many asylums his promotion is altogether arrested by the failure of his seniors to get appointments elsewhere.

A.M.Os. frequently receive a higher initial salary if they have been through a post-graduate course at a clinic.

In France appointments to the lunacy service are made after examination, and further examinations must be passed before promotion to higher posts can be obtained.

In Germany, France, and America a state service exists, and the facilities for interchange between the various asylums is therefore considerably greater.

(2) *The lack of attractive posts.*

Only a minority of those who enter the asylum service can hope to reach the position of superintendent, while short of this there are but few attractive posts. The position of the senior medical officer is in most cases defective in its financial, social, and professional aspects. The ratio of his salary to that of the superintendent is generally low, he is frequently forbidden to marry, and he has but little autonomy and independence.

There are very few well-paid appointments available for those who are specially qualified to carry on scientific investigation and research, and local authorities are seldom in a position, if they have the desire, to find the money required for carrying on this all-important but very expensive branch of the work.

(3) *The restricted social conditions.*

(a) Celibacy is enforced either directly or indirectly upon the great majority of medical officers. In many cases marriage is directly forbidden, in others it is rendered impossible because the salary is inadequate for a married professional man.

In the smaller English Asylums, where the average age of the Senior A.M.O. is 36.6, and the average length of service 9.5 years, only 18 per cent. are married. In the large asylums with more than two A.M.Os. where the average age of the Senior A.M.O. is 38.3, and the average length of service 11.8 years, 51 per cent. are married. But in these latter institutions the second A.M.O., whose average age is 35, and length of service 6 years, is married in only one instance. In Scotland according to the information furnished by the circulars, not a single A.M.O. is married, although the Scotch Superintendents have served on an

In many countries the senior medical officers have a considerable degree of autonomy and independence (particularly in Italy). The ratio of their salary to that of the superintendent is high (5/7 in some asylums in Germany). Marriage is always permitted.

The facilities for marriage are immensely greater in other European countries and in America, and enforced celibacy hardly exists. In America from a half to a third of all medical officers are married. In Germany out of 104 asylums, with a total medical staff of 636, married quarters are provided for 320 men, and 222 are actually married. Marriage is generally permitted after the period of probation has been passed, and either houses are provided on the asylum estate, or the medical officer is allowed to live out.



average ten years before receiving their appointments.

The returns from Ireland are more favourable, and show that 53 *per cent.* of the Senior A.M.Os. are married.

(b) Medical officers are generally compelled to live in the institution, and their personal liberty is curtailed to an extent which is not infrequently needless and arbitrary.

(4) *The tendency of routine to kill enthusiasm and destroy medical interests :*

The promotion or advancement of a medical officer depends so little upon his knowledge of psychiatry that he has no inducement for that reason to devote himself to an earnest study of the subject. His work is apt to begin and end with the discharge of essential routine duties to the exclusion of careful clinical and scientific investigation.

The work assigned to junior medical officers is in the majority of cases monotonous, uninteresting, and without adequate responsibility. For those whose personal enthusiasm keeps alive in them the desire to extend their knowledge such opportunities as that of study-leave are rarely afforded them. The existing system therefore leads to the stunting of ambition and a gradual loss of interest in scientific medicine, and it tends to produce a deteriorating effect upon those who remain long in the service.

Junior medical officers are expected to take up some particular line of study in addition to their routine work, and the prospects of promotion are influenced by energy and success in this. Special study-leave, often with financial assistance, is given (Germany).

The Committee is of the opinion that the statement of facts now submitted demands the earnest attention of the Medico-Psychological Association, of public authorities, and all interested in the welfare of the insane.

The questions raised are urgent, for there is no doubt that under present conditions psychiatry is an unpopular branch of medicine, and unless some remedy be found there is reason to fear that men of ability and promise will, to an increasing extent, cease to enter on asylum work, or abandon it as a career.

Should the Association decide to adopt this Interim Report the Committee, if reappointed, will submit to a future meeting definite proposals for the remedy of the defects mentioned in this Report.

In the meantime the Committee hopes that this difficult question will be thoroughly discussed by the Association.

It will, moreover, be of great service to the Committee if members, having suggestions to make or criticisms to offer, will bring them to the notice of the Committee either in the course of the debate or in writing, so that in its endeavour to find a solution of the perplexing questions that arise the Committee may have the assistance of the whole Association.

BEDFORD PIERCE (*Chairman*).  
BERNARD HART (*Secretary*).

*Summary of Information contained in Replies to the Circulars sent to the Medical Superintendents of the Public Asylums and the Royal and Registered Hospitals in the British Isles.*

Asylums	ENGLAND AND WALES.		SCOTLAND.	IRELAND.
	Not more than 2 A.M.Os.	More than 2 A.M.Os.		
No. of returns . . . . .	64	29	21	17
No. of asylums applied to for information . . . . .		109	28	24
(1) <i>Medical superintendent:</i>				
Average age on appointment . . . . .	34.7	38.11	35.2	36.4
Average service prior to appointment . . . . .	9.3	12.5	10	10.8
(2) <i>Senior assistant M.O.:</i>				
Average age on appointment to present post . . . . .	29	32.9	26.2	28
Average service prior to present appointment . . . . .	2.4	5.5	1.4	1.5
Average age at present time . . . . .	36.6	38.3	30	37.8
Average total asylum service . . . . .	9.5	11.8	5.2	12
Total senior A.M.O. married . . . . .	12	15	—	9
Salary (exclusive of emoluments) . . . . .	£235	£338	£198	£242
(3) <i>Second assistant M.O.:</i>				
Average age on appointment to present post . . . . .	28.4 (Returns, 43)	32.1 (Returns, 29)	25.1 (Returns, 11)	29.3 (Returns, 7)
Average service prior to present Appointment . . . . .	.8	2.3	.6	3.3
Average age at present time . . . . .	31.2	35	26	33.1
Average total asylum service . . . . .	4.3	6	2	7.7
Second A.M.O. married . . . . .	—	1	—	—
Average salary . . . . .	£176.2	£237	£153	£153
Average number of patients per M.O., including medical superintendents, excluding clinical assistants . . . . .	242	302	201	341
Ditto, excluding medical superintendents . . . . .	389	384	312	522

These figures have been verified by Messrs. Gundry, Straus and Soper, Chartered Accountants, Great Winchester Street, London, E.C.

The PRESIDENT said he was very sorry Dr. Bedford Pierce was not present that day, but he hoped to be in attendance on the following day. Dr. Pierce had been Chairman of the Committee appointed to consider the status of British psychiatry and of medical officers, and he had given a great deal of attention and spent very much time in drawing up the Interim Report, which he hoped Dr. Pierce would have been present to ask the meeting to receive. As he was not there, he would propose from the chair that the Report be received now—he did not ask that it be adopted—and that the consideration and discussion of the Report be postponed until noon the following day. In order to regularise matters it was necessary that this motion as arising out of the Report should be submitted now. It was thought better to allot a fixed time for the consideration of such an important matter, so that it should not be crushed in between other business, and the fixing of a definite time for the discussion would enable a certain number of assistant medical officers, who could not get off for the whole meeting, to be present at the consideration of this matter which concerned them so largely. He therefore moved that this Interim Report

be received, and that the consideration of the Report, and the discussion on it, be postponed until twelve, noon, on Thursday, 17th inst., when he hoped Dr. Bedford Pierce would be present.

Dr. D. G. THOMSON seconded.

Carried.

#### DR. STEWART'S MOTION TO ADD TO THE XIVTH BYE-LAW.

The PRESIDENT said the proposer of this was not present, but it was open to any member to take the matter up if he desired to do so.

There being no response the matter dropped.

#### DATES OF ANNUAL, QUARTERLY, AND DIVISIONAL MEETINGS.

The dates given on the agenda were agreed to, namely, for the Quarterly Meetings, November 25th, 1913, February 19th, 1914, May 19th, 1914, and for the Annual Meeting, Tuesday, July 14th, 1914, the latter having been agreed to in consultation with Dr. Thomson.

#### ELECTION OF NEW MEMBERS.

The PRESIDENT nominated as scrutineers for the election of new members Dr. MacRae and Dr. Douglas.

The following gentlemen were duly elected :

Dyer, Sidney Reginald, M.D.Brux., L.R.C.P.Lond., M.R.C.S.Eng., L.S.A., D.P.H., Barrister-at-Law, P.M.O. H.M.Prison, Brixton, 151, Brixton Hill, London, S.W. (Proposed by Drs. Chas. Mercier, H. Hayes Newington, and Sir Geo. Savage.)

Walford, Harold Rosser Styleman, M.R.C.S., L.R.C.P., Second Assistant Medical Officer, Worcester County and City Asylum, Powick, Worcester. (Proposed by Drs. Braine Hartnell, Felix Fenton, and F. J. Wiseley.)

This concluded the business of the morning session.

#### WEDNESDAY AFTERNOON SESSION.

Dr. SOUTAR in the Chair.

#### PRESENTATION TO DR. HAYES NEWINGTON.

The PRESIDENT said this was an interlude—a few minutes seized from the regular business of the day—to do honour to one of the members, the Treasurer of the Association, Dr. Hayes Newington. (Applause.) Addressing Dr. Newington, he continued: The way, Dr. Newington, in which your name has been received, is an unmistakable sign of the esteem in which we hold you, and of our recognition of the fact that your services on behalf of the Association have been of inestimable value in making and maintaining its success. (Applause.) About twelve months ago, when the idea was mooted that occasion should be taken to mark Dr. Newington's forty years' connection with the Association in some appropriate way, the suggestion was received with immediate and enthusiastic approval. It was felt that they would like, if Dr. Newington agreed, that the recognition should take the form of a portrait of himself; it was felt that they would like posterity to know what manner of man he was to look upon who had won in such full measure the affectionate regard of his colleagues. A committee was appointed, and every member of that committee felt privileged by belonging to it. But it was due to Dr. Percy Smith and Dr. Hunter, above all others, that their wishes had been given effect to. They were very fortunate in finding that Mr. W. W. Oulless, R.A., one of the most eminent portrait painters of the day, could undertake the painting of the picture, and he thought those who had seen the portrait in the Academy would agree with him that the artist had added another to his triumphs. He had placed upon the canvas, he thought, a very actual representation of Dr. Newington. It was just as members often saw him at the Council table and in the general meetings—somewhat disturbed and anxious,

perhaps, at the course the discussion had taken, and just before he rose to correct by his knowledge, or guide by his wisdom, the Association into the right course. (Applause.) It required a high and very rare gift—which he did not himself possess—to relate efficiently and without offence in the presence of the man himself the tale of his virtues, and he would not attempt it. Dr. Newington had, for all these years, moved amongst them, and members all knew him well: and what was being done to-day was the spontaneous and natural outcome of their knowledge. Dr. Newington's portrait was still in the Academy, and he had not the opportunity, in the name of the Association, of actually handing it over to him, but from that moment it was his, as a symbol of the high esteem in which they held him. In order to give further expression to their feelings a few words had been inscribed on vellum. They ran as follows:

"To Dr. HERBERT FRANCIS HAYES NEWINGTON, F.R.C.P. Edin.—On the fortieth anniversary of your connection with the Medico-Psychological Association of Great Britain and Ireland, we, Members of that Association, desire to place on record our appreciation of the invaluable services which you have rendered to it and to the cause of the insane in these countries. You have administered the finances of the Association with conspicuous success for nearly twenty years. As President in 1889, as Chairman of the Parliamentary Committee from 1896 to 1904, as member of the Statistical Committee, of the Select Committee for promoting the Mental Deficiency Bill, and in numberless other capacities, you have been unsparing of time and labour in all that concerns the welfare of the insane and the prosperity of the Association. To you, too, it has been that many of the successive Presidents and General Secretaries have turned as their guide, philosopher and friend. On behalf of the subscribers, we now ask you to accept the portrait of yourself, painted by Mr. W. W. Oules, R.A., as a permanent expression of our sense of obligation to you for your manifold services to the Association, and the esteem and regard in which we hold you, and our desire for your well-being and your happiness." It was signed by Drs. Bond, Chambers, Sir Thomas Clouston, Drs. Dawson, Drapes, Hunter, Robert Jones, Macpherson, Nolan, Pierce, Rayner, Sir G. Savage, Drs. Percy Smith, Soutar, and Spence. In the name of his friends he asked Dr. Newington's acceptance of the Portrait and the Vellum.

Dr. HAYES NEWINGTON, in reply, said he hoped his hearers would pardon him if he manifested a good deal of embarrassment at the moment. It did not occur to anybody often to be the recipient of such a handsome testimonial as had been handed to him in the name of the Association. His first duty, obviously, was to say, heartily, "Thank you!" It was difficult for him to know which to value most—the very excellent portrait which his friends had presented to him, accompanied by a considerable amount of honour in the exhibition thereof at the Academy; or whether he ought to feel thankful most for the spirit which underlay the presentation of the testimonial on vellum, a spirit expressed so admirably in the words which the President uttered. He did not know that he could plead guilty to all the virtues which the President had alleged against him, but he would sum up in a very few words what he had tried to do, namely, he had tried to do his best. (Applause.) When he was honoured by the confidence of the Association in being made Treasurer, Dr. Hack Tuke and he talked the matter over, and that gentleman told him it was a position of great honour and responsibility. And ever since then, he confessed he had tried to act up to those great principles; to keep up the honour of the Association, as well as his own, and to accept the responsibility, as far as he could, for the well-being of the Association. Members had been good enough to express the debt of the Association to himself, but he had to put against that a very substantial asset, namely, the debt which he owed to the Association. Not only had it given him a position of responsibility and very great honour, but it had afforded him his best and most pleasant recreation in his life's work which one could possibly have. He had to thank the Association not only for its continued confidence as a body, but also individually for the way in which members had deferred to him and asked his opinion and given him the opportunity of working with them. And amid all the work and worry which he had had, professionally and otherwise, he had felt the surest recreation and relief from those worries was to turn to the affairs of the Association, and he felt that when the time came—and it could not now be very long delayed—when he would be handing over

the work to others, he would be bankrupt, to a certain extent, in the opportunities of affording himself healthy and useful recreation. Often and often, when he had been bothered with things, he had taken the Association's books—even the subscription accounts (Laughter)—and they had carried his mind away from England, even to countries abroad, and he thought of the friendships he had, even with unknown people, through the medium of those books. And that had been no light thing. The President had been good enough to speak of him as a creditor of the Association, but he would like to write himself down as its debtor in regard to a considerable part of his life's work. He again thanked them all most heartily for the portrait and the spirit in which it was given; also for the kind words which the President had spoken. (Applause.)

#### VOTE OF THANKS TO THE RETIRING PRESIDENT AND OFFICERS.

Dr. McDOWELL said he had been honoured with the request to propose a vote of thanks to the retiring President and to the various officers who had so faithfully discharged their duties during the past year. It was really unnecessary to say much about the retiring President, because those who took an interest in the Association would remember how keenly he had worked; and it was the knowledge of members as to the energetic manner in which Dr. Soutar had fulfilled the duties of President which would make them wish to accord these thanks. It was only the men who took a living interest in the work of the Association who could thoroughly appreciate the great amount of effort which had to be put forth by the President in late years. The Association, as was known to his hearers, had during the past year been engaged in watching various Bills in their passage through Parliament, and this entailed a great amount of attention, correspondence, and work of various kinds, work which had been most faithfully performed. Besides all that work, Dr. Soutar had attended several meetings of Divisions, and had helped to make those meetings a greater success than they had been for some time in the past. In regard to the various officers, who were elected, year by year, to various positions of trust, every member would feel how diligently they did their work, and how much they sacrificed in so doing. It was not his intention to mention any specially by name, but his proposal was that the Association should accord to the various officers—Editors, Treasurer, and so forth—a very cordial vote of thanks for the very great services which they had rendered to the Association during the past year.

Dr. PERCY SMITH said it was with great pleasure he rose to second the vote of thanks which had been proposed to the retiring President and officers for their work during the past year. It was a great satisfaction to him to be able to thank Dr. Soutar in this way; that gentleman and he might be regarded as almost absolute contemporaries in the Association, and although Dr. Soutar came from the extreme north and he, Dr. Smith, from the extreme south, the views of both of them on medical subjects were almost identical. Members knew the admirable way in which Dr. Soutar presided over Barnwood House, and it was felt that he would make an excellent president; he had done what was expected of him, and had filled the presidential chair with dignity and courtesy and with complete efficiency. It therefore gave him extreme pleasure to support the vote of thanks. As had been said before, presidents came and went, but the permanent officials went on for ever. Members felt that a great deal of the burden of work depended on the permanent officials. It was not necessary to say anything more about the Treasurer to-day, as he had received his praises from the President. In the General Secretary, Dr. Collins, the Association had a worthy successor to Dr. Bond, and it was the hope that he would long hold that office. The Registrar, of course, did an enormous lot of work. (Applause.) Nobody could gauge the amount of work involved in the arrangements for the examinations for nurses and others. With regard to the Editors, the Journal still continued to hold its place, and he was sure that so long as it was conducted by the present Editors it would maintain its pre-eminent position. Then there were the Divisional Secretaries and Examiners, and it was felt that each one of them had done everything he could for the credit and honour of the Association.

Carried by acclamation.

The PRESIDENT said it fell to him to acknowledge the vote of thanks, not for

himself only, but for the officers of the Association. Of those officers he would like to say that while on their behalf he thanked the meeting for its appreciation of their services, he would like himself to join, in a very special degree, in that appreciation. No one more than the President for the time being knew how much work, in what an increasing amount, and what quality of work was done for the Association by those whom Dr. Percy Smith spoke of as the permanent officials, and no one but the President knew how often they saved the situation for him. And they did it so nicely; they did not hold out a hand and make one feel one was being led, they simply placed an arm into one's own, and so pitfalls were avoided into which, without their companionship, one might easily have fallen. As had been rightly said, there could be no differentiation among the various officers, but he would like to support what Dr. Percy Smith said about the General Secretary, that the Association was to be most heartily congratulated on the fact that it already had in Dr. Collins one who ranked, in the matter of efficiency, with his most experienced predecessors. (Applause.) For himself, he thanked the proposer and seconder very heartily and sincerely for their kind words and the meeting for the reception which had been given to those words. His path had been made smooth by very sympathetic co-operation; and amongst his pleasantest memories would be that of his year of office as President of this Association. The year ended for him in a very gratifying way, for he now had the pleasure of introducing as his successor Dr. James Chambers. (Loud applause.) They knew Dr. Chambers' record, his capacity, his conscientious interest in everything he took in hand, his unfailing courtesy and geniality, and these qualities assured the realisation of the hopes held by all that his year of office would be a most prosperous one for the Association and a happy one for himself. (Applause.)

Dr. Chambers then took the Chair, after Dr. Soutar had invested him with the Presidential Insignia.

The PRESIDENT (Dr. Chambers) desired to say very briefly that he greatly appreciated the honour which had been done him in electing him to that chair, and the kind terms in which the retiring President had introduced him.

#### PRESENTATION OF PRIZES.

The PRESIDENT presented to Dr. Rees Thomas, of East Sussex Asylum, the Gaskell Prize, and to Dr. Mackinley Reid, of Horton Asylum, the Bronze Medal. He announced that the second Divisional Prize of £5 had been awarded to Dr. Geoffrey Clarke, of the London County Asylum, Banstead.

#### PRESIDENTIAL ADDRESS.

The PRESIDENT then delivered his address, entitled "The Prevention of the Insanities" (see p. 549).

Dr. MERCIER said that in the earlier part of the afternoon the meeting had listened to many eulogies of their permanent officers. He did not raise his voice in support of those eulogies, and he felt that on certain occasions they were perhaps a little wanting in tact and judgment, those qualities which usually characterised them. On three successive occasions he had been selected for a task which was far from congenial to him. At Edinburgh he had to propose a vote of thanks to a previous President, whom he was glad to see sitting in their ranks that day. He was sorry to find that on that occasion he was the most inappropriate person to propose a vote of thanks, because in that address he could find nothing with which he could disagree. At Cardiff he was asked to propose the "Health of the Visitors," the chief of which visitors being a man for whose blood he had been thirsting for years. (Laughter.) And now, this afternoon, he was asked to propose a vote of thanks to the President for his address. And again he found there was scarcely anything in it which afforded him the pleasure of an argument or of disagreement. That, however, was of less importance on this occasion, because members were not supposed to criticise or disagree with the President's address. He would collect the meeting's suffrages, and tender to the President the thanks of the Association for the address he had given, the range of which was unusually extensive. It particularly interested him because many of the topics which he touched upon were those which interested him out of measure, and in

connection with which he had recently been engaged in controversy with various people. The controversy between vitalism and mechanism had been going on for centuries, at any rate since the time of Copernicus; and mechanism had been continually encroaching upon vitalism, and vitalism had been continually retreating more and more, until now it had retreated behind the connection between mind and body. And from that connection it did not intend to be dislodged. Many attempts had been made to dislodge it, but it was there for the present, and, in his opinion, it would remain there. Another controversy which was very much in the air was that with respect to purpose, and that also the President touched upon and illuminated: was this Universe the product of an intelligent Purpose, or was it merely the effect of blind chance acting upon a fortuitous concourse of atoms? That was an exceedingly interesting topic, which he did not now propose to discuss to the full. (Laughter.) No doubt all present were, like himself, charmed by the many literary allusions in the President's address. The position he took up, that man must be regarded not only as a social unit and not only as a progenitor but also as a parent, was one which, he supposed, appealed to most of those present. Undoubtedly there were in society at the present time vast forces moving, and vast influences being brought to bear for the benefit, not only of this generation, but for the future of the human race. Those the President had indicated. Whether those forces were all being wisely directed, or whether some of them might not be blindly groping, and perhaps producing effects which our descendants would be sorry for, it was difficult to say. The whole of our social life had now become so complex that it surpassed the wit of the human mind to forecast what the effect would be of any legislative change. He invited them to look, for instance, at the enthusiasm with which the Insurance Act was welcomed when it first became law. Whatever other result might have followed on the passage of that Bill into law, he trusted it would be a lesson to our legislators not again to pass crude, undigested and unthought-out legislation. He was delighted to find, also, that the President uncompromisingly believed in the transmission of certain acquired characters. That was a controversy on which he had been engaged frequently and strenuously. He supposed that among the opponents of the view of the transmission of acquired characters he had made more friends than had accrued to him from any other of the controversies in which he had been engaged; and he was glad to find that, at last, the right view was beginning to prevail. For a long time, the person who believed in the transmission of acquired characters was about as popular in scientific circles as a Pro-Boer was at the time of the South African war. But now opinion was setting so steadily the other way that he felt inclined to wonder whether it could be right after all (Laughter), whether there must not be, therefore, something to be said on the other side. However, the thanks of the Association were due to the President for a most interesting address, taking in a wide field, and inspired by a very charming literary flavour. He took the Association's suffrages and laid them at his feet. (Loud applause.)

Dr. STODDART said that inasmuch as he had been called upon to second the vote of thanks to the President for his address, he felt grateful for the rule which precluded the discussion of a presidential address. It was so profound and interesting that he felt he would like to read it carefully before forming any conclusions. He felt he must take a somewhat different view from that expressed by Dr. Mercier, that there was nothing in the address to which one could take exception. He had known Dr. Chambers many years and had come to regard him as a person with whom nobody could ever quarrel, but since hearing this address he had rather changed his opinion. He had much pleasure in seconding the vote of thanks which Dr. Mercier had so ably proposed.

Carried.

The PRESIDENT said he felt much gratified by their vote of thanks and by the fact that the address had evoked Dr. Mercier's delightful speech.

Dr. H. CAMPBELL THOMPSON: "Traumatic Neurasthenia" (see p. 582).

The paper was discussed by Sir GEORGE SAVAGE, Dr. PASMORE, Dr. ROBERT JONES, Dr. MENZIES, Mr. McRAE, and Dr. CARSWELL.

Dr. CAMPBELL THOMPSON replied.

Dr. HENRY DEVINE's paper entitled "The Clinical Significance of Katatonic Symptoms" was deferred until a future meeting.

## SECOND DAY.

The PRESIDENT, Dr. CHAMBERS, was in the Chair.

Dr. MERCIER read a paper entitled "The Interpretation of Dreams."

Remarks on the subject were made by Sir GEORGE SAVAGE, Dr. ROBERT JONES, Dr. CARSWELL and Dr. STANLEY GILL.

Dr. MERCIER replied.

Dr. H. SALTER GETTINGS contributed a paper on "Dysentery, Past and Present" (see p. 605).

The PRESIDENT said Dr. Shaw Bolton had written expressing his regret that he could not be present at the reading of this paper by his colleague, and had suggested that the discussion should be postponed until the next quarterly meeting in November. He proposed that Dr. Bolton's suggestion should be adopted and that the paper should be printed in the next number of the JOURNAL.

Dr. THOMSON seconded the proposition, and Dr. Gettings having expressed his acquiescence the resolution was carried.

Dr. BARTON WHITE read a paper on "Bacteriological Examination of the Urine in Some Cases of General Paralysis" (see p. 596).

Dr. SOUTAR, Dr. COLLINS, Dr. HOWARD and Dr. DAWSON joined in the discussion.

Dr. BARTON WHITE replied.

## THE STATUS OF BRITISH PSYCHIATRY AND OF MEDICAL OFFICERS.

The PRESIDENT remarked that, as members were aware, the Interim Report of the Committee appointed to investigate the Status of British Psychiatry and of Medical Officers had been received formally on the previous day, but discussion thereon had been postponed until to-day. It would be seen from the Report that a large amount of valuable information had been collected and summarised. The Committee had thought it best, in the first instance, to enumerate the conditions and circumstances which seemed to affect injuriously the position and practice of psychiatry in this country. They had not proposed a remedy, but had given a brief account of the methods adopted in other countries to deal with these and similar problems. As they all knew, Dr. Bedford Pierce had already done yeoman service in this matter; he was glad that gentleman was able to be present, and he would ask him to move the adoption of the Report.

Dr. BEDFORD PIERCE said the reference of this Committee was extremely wide; but it seemed right that it should be so, though it rendered the labours of the Committee greater than was at first anticipated. A physician, who was perhaps one of the wisest of his generation, used to teach his students that they should never make a diagnosis until they had completed their examination. That was a dictum which it was good for all to bear in mind; and when they were dealing with social problems it was important that matters should be looked at from a broad point of view. It was unwise to attempt the treatment of mere symptoms or isolated effects without reviewing the whole situation. The Committee had tried to do this. In the Interim Report now presented the defects of the present system were set forth, but no remedies were proposed and no suggestions were made as to the best way of dealing with these defects. The Committee were aware that it was much easier to point out defects than to suggest effective remedies. They were also aware that if they should be re-appointed, their difficulties were in front of them rather than behind. There is, unfortunately, no doubt about that. The conditions of service in the asylums generally were such as to render the service unpopular and unattractive. He knew that when he gave up his appointment in St. Bartholomew's Hospital to take up his present post many of his friends thought it was a retrograde step, as if psychological medicine gave no opening for scientific work, and that it was a life of ease, tending to intellectual atrophy. That feeling, he believed, still existed, and young men were dissuaded from entering this special branch of medicine by those whom they had learnt to respect in the general hospitals. It was therefore the duty of the Committee and of the Association to face this and to see the reasons. On examination



of the subject he thought it would be found that a vicious circle existed, because if the conditions were so unsatisfactory that good and promising men were dissuaded from entering the service, it must be expected that the conditions would remain unsatisfactory so long as an insufficient number of able men took up the work. In order to raise the status of that branch of medicine, it required men rather than machinery; it was so in the case of any human institution.

On looking at this question, it was obviously of the first importance that regard should be had all through for the welfare of the insane patients. To view the matter merely from the trade union point would be not only useless, but it would be unworthy. Hence, it would be seen that much of this Report had underlying it a desire to improve the position and the effective treatment of the insane in this country. In order to do this, those who practise psychiatry must be better men and better equipped; they must have better opportunities of learning their work than they now possess. The Committee had detailed, at considerable length, ways in which it was considered that the present methods of education and training were defective. The Committee thought there should be clinics connected with the hospitals, so that the early treatment of the insane could be effectively undertaken; that there should be many more laboratories and places of research, where new work could be done and where advances in psychological medicine might be made. There should also be increased facilities for medical officers to attend these clinics and research laboratories, in the form of study-leave, and other incentives, so that hard work was not without reward. The Committee felt that there did not now exist sufficient encouragement to undertake serious scientific study of mental diseases. He was aware that persons of genius would overcome any obstacle: the names of Cavendish, Stephenson, Darwin, arise in the mind, showing how neither wealth, nor poverty, nor ill-health can prevent genius from finding its own way over difficulties. They knew also of men in their own branch—some of whom were still with us—who, in spite of the difficulties and obstacles, had done brilliant original work of which the Association was proud. But the average man—and he spoke as an average man—required incentive and encouragement if he was to do good work. Very much depended on the position in which he was placed, on his environment. He was not able to be present to hear Dr. Chambers' Presidential address, but he had heard comments upon it at the dinner, and he believed he was correct in saying that the President spoke most emphatically on the importance of environment in the development of character. He invited his hearers to consider what was the environment of many of the young men entering upon asylum work. He feared it must be admitted that a young man might be placed in surroundings which were far from stimulating, and which tended to intellectual atrophy. He believed he was correct in stating that in some of the larger asylums it was the practice to put the junior men in charge of the chronic patients, and consequently they saw little or nothing of the treatment of the acute and recent cases. Therefore a young man might spend the earlier part of his career in attending to the least interesting and least promising kind of patients. Moreover, if an energetic junior found himself in an institution where the scientific spirit was low, there he must remain owing to the absence of any facilities for a ready transfer from one institution to another. He thought it was the duty of the Association to consider these matters carefully, so that in the future those who enter upon asylum work may receive encouragement at the outset to undertake scientific work. If the juniors acquire a taste for study and research it will not be long before the status of psychiatry as a whole would be improved. He did not think there was need for him to dwell at length on the conditions of service of assistant medical officers. He was in a very rare position in that he had never been an assistant medical officer in an asylum, and so had not been through the mill; but perhaps for that reason he was the better able to form an opinion on the matter. Those who had been for many years doing this routine work of assistant medical officer considered much of the work needlessly irksome. It was felt that those duties need not be so monotonous and uniform as they frequently are; but he hesitated to speak much about that of which he had little personal knowledge. On the question of celibacy he felt very strongly. He would relate a case. A young man, after ten years' service, applied to his Committee for leave to marry. The Committee unanimously granted that permission. Then arose the difficulty of finding quarters. The matter therefore went forward to a larger County Council

Committee with the view of getting a grant for the necessary building. Five years elapsed and then there was a full-dress debate in the County Council, and, by a majority of forty-one to fourteen the matter was shelved, and the promised new house or other married quarters was not forthcoming. The medical officer had now had fifteen years' service and was forty years of age. He did not know more than a mere outline of the facts, but it indicated a deplorable condition of affairs, to which the word intolerable could well be applied. The proportion of assistant medical officers who were married and their average ages were set forth in the tabulated statement attached to the Report. The case he had related was clearly no isolated one. He mentioned it as showing what happened and what was happening—for that debate took place this year—and it showed that assistant medical officers had reason for complaint against the existing order of things. If members of the profession generally would pay attention to the spirit which underlay Sir Thomas Barlow's address at the dinner on the previous evening, and look upon assistant medical officers as medical brethren, many of the difficulties the latter suffered under might be materially lightened. If those of us who were seniors were to take more interest in the welfare of our juniors, and used our influence in guiding public opinion and creating a healthy view on the matter, more could be done in the way of remedy than seemed at present possible. The Committee found that the number of patients per medical officer was seriously large in this country. In the English large asylums the number was 302 patients per doctor. He possessed an interesting report of the conditions obtaining in New York State, where the asylums were even larger than those in England. Yet in the larger asylums in that State the number of patients per medical officer was 145, though in some of the smaller asylums 197. It was clearly not in the interests of the patients that the medical officer should be discouraged by this appalling amount of work; certainly under such conditions the work could not be properly done. Before resuming his seat he would like to remark that this seemed to be a singularly opportune time for a discussion on this question. The Insurance Act had drawn people's attention more prominently than before to the health and well-being of the community. They knew the hospital system was likely to be re-constructed in many districts, and the question of their municipalisation was in the air. One heard, also, that a Minister of Public Health was not an impossibility, and there was also the new Bill dealing with mental deficiency. Hence now was surely the time for the Association frankly to discuss this question. If they did not speak now there would be danger of the wrong line being taken, and so the opportunity might be lost. He thought the Association should frame a policy and submit that policy to the authorities, so that real progress might take place. He therefore asked the Association to give its approval to the Report, and he hoped that subsequently it would be the wish of the members that the Committee should be re-appointed.

Dr. Rows remarked that Dr. Bedford Pierce had approached the subject in a general way, and had confessed that he had not been "through the mill" as an assistant medical officer. In seconding this resolution he proposed to offer a few comments as one who had been through the mill. In the Interim Report the Committee dealt first with the treatment of patients; and of the cases which had come under his own care he wished to mention one or two. While he was at Birmingham a man came to the Asylum and said he felt the impulse to kill his wife and children. He was advised to go to the relieving officer. The same thing happened at Prestwich. In a third case a man said he felt he must commit suicide, and he also was advised to go to the relieving officer. He threw himself under the first train he met. Another instance was that of a girl who came to Lancaster Asylum with similar tendencies. She had thrown herself into a pond, had been rescued, taken to the police-court, and later sent on to the institution. After some difficulty he found out what was the primary cause of her depression, but she did not improve satisfactorily, and in reply to further inquiry she said, "What is the use of my getting better? I tried to commit suicide and was arrested by the police, and if I get better and go home I shall be re-arrested by the police and sentenced." That was a definite hindrance to her recovery. Besides such cases it must be recognised that people came to asylums with a history that they had been suffering for one, two, three or four years, and that they had received no advice or treatment from anyone who knew the subject of psychiatry. It seemed to him it was

desirable that the members of the lunacy service in this country should consider the injury which was being done to the patients by the present lack of facilities for treatment during the early stages of their illness, and how much more difficult it was for them to recover after they became inmates in the asylums. It was primarily from that point of view that the Report was submitted. With regard to the facilities for teaching the subject of psychiatry in our asylums his own experience had been as follows: He had been in four asylums, but in none of them had he been associated with a colleague who was capable of teaching him the subject of psychiatry. And where should he have gone? In what British asylum could he have obtained adequate instruction in psychiatry? That might strike his hearers as a strong statement, and he might be asked what he meant by "adequate instruction." One did not consider that a man who, in a patient, recognised an evening temperature associated with a cough, with sweating and loss of weight was fit to diagnose and treat tuberculosis of the lung. In order to know anything valuable about it he must be acquainted with the anatomy and physiology of the lungs in the normal person; he must know the pathology of the lungs, what was meant by consolidation, and what changes occurred in the tissues following the irritation by the bacillus; he must learn the biology of the bacillus and its methods of entry into the body as well as the best methods of preventing the disease. When a man had become acquainted with these things one could say he knew something about tuberculosis of the lungs. Let the same reasoning be applied to psychiatry. The man who would understand psychiatry—which he regarded as the most difficult branch of medicine—must know the anatomy and physiology of the nervous system; he must know also its pathology; he must know experimental psychology, psycho-analysis, and forensic psychology. Only when he had studied all these and saw clearly the interconnection between the various branches of the subject could he be said to know psychiatry. That, then, was the basis of the remark he had made, that in none of the four asylums in which he had worked had he found a man capable of teaching him the subject of psychiatry. But that surely was the standard which the unfortunate sufferer from mental breakdown had a right to demand in his treatment: that was the standard which actuated the Visiting Committee at Hanwell Asylum sixty years ago, when they said that that Asylum ought to have a staff as numerous and as efficient as St. George's or St. Bartholomew's. And he believed he was right in saying it was the standard which the public in this country were waking up to demand in the asylums. With regard to the encouragement of the work in asylums he could put that very briefly. If, since entering the lunacy service fifteen years ago, he had never opened a book on the subject of psychiatry, if he had never cut a section, if he had never looked down a microscope tube, and had never put pen to paper, he would yet be in the same position in the asylum service as he was occupying to-day; the salary and the prospects would be just the same; indeed, he was not sure he had not injured his prospects by the work he had done. He thought all members of the Association would agree that that state of affairs was not to their credit, and that something ought to be done to remedy it. He did not doubt that if, in private conversation, he were to approach individually each man in the room, that would be admitted. The Committee, which was appointed by the Association two years ago, had looked at the subject all round; it had investigated the present conditions obtaining in our asylums; it had gained information as to what was done in other countries, and the Report was now submitted to the Association, in annual meeting assembled, asking for members' careful consideration and for their co-operation in the effort to remedy what the Committee had tried to show was a serious deficiency. He had much pleasure in seconding the resolution proposed by Dr. Bedford Pierce.

The PRESIDENT suggested that it would be desirable to consider *seriatim* the three groups of defects which the Committee had set forth in their report. The first group was under the heading, "Absence of proper provision for the early treatment of incipient and undeveloped cases of mental disorder." He would put it that the meeting should adopt this section of the Report.

Dr. SOUTAR said there was one point which he did not think Dr. Pierce and Dr. Rows laid sufficient emphasis upon. He knew it was the desire of the Committee to get the assistance of the general meeting and of all members in the consideration of this Interim Report, and the Committee was extremely desirous at this stage of ascertaining whether what had been described as defects were real defects in the

opinion of the general body of the members. They also wished to know whether there were any other defects than those drawn attention to in the Report. The position taken up by the Committee in submitting this *ad interim* report was, that it was thought better that the Association should come to some agreement as to what the defects were, before the Committee should proceed to suggest any remedies. To go on to suggest remedies and find afterwards that supposed defects were not really so, or that any real defects had been omitted, would have placed the Committee in a false position. That was the Committee's justification for submitting now only this *ad interim* report. It had taken a long time to arrive at the conclusions set forth, as it was a very much bigger matter than had been anticipated. To certain members of the Committee a very deep debt of gratitude was due for the vast amount of work which had to be done before it could be epitomised in the present form. He appealed to members present to speak now if they had anything to say, before the Report was adopted, in order that it might not be found afterwards that when the Committee proceeded to deal with something in the way of remedy, an important defect had been left out. His appeal meant—Speak out now or be silent afterwards. If the Committee should be reappointed, it would be its duty to submit remedies, in the further report which it must present, for the criticism of another general meeting.

Dr. McDOWALL said, in regard to paragraph 1 in the Interim Report, that he supposed every man in the room would admit that there were many defects existing in the arrangements for the treatment of early insanity. He had recognised that for many years, and he had tried, in his humble way, to open a special department for the examination of the mental cases brought by their friends, and for those patients who came there voluntarily. But he had to confess that the experiment was not a successful one. In consequence of his experience he would say that before any attempt was made to copy the arrangements which had been made in Edinburgh, Dundee and other institutions, very careful inquiry should be undertaken as to the experiments and the results in those places, because, as far as he had been able to discover, the wards specially set apart for such were worse than useless. He wished very much that the men who thought of embarking on that work would themselves go to those places and see how such cases were treated in the early stages. From what he had heard he strongly disapproved of the arrangements altogether, and he would far rather that they did not exist than that they should be extended to other institutions in the same manner. What Dr. Rows said was true in regard to the inability of chiefs of asylums to undertake the teaching of psychiatry in all its branches. Scientific methods had developed so rapidly that, especially when the medical officers were getting on in years, it was practically impossible for them to keep abreast of every branch of science. Still, he would be very sorry for it to go abroad that the senior men in asylums were incapable of any kind of teaching work at all, or that they did not do their best to encourage the younger men. In his long official experience the difficulty had been to get the young men in the service to avail themselves of the opportunities he had offered to them. (Hear, hear.) In his own asylum, for instance, there were facilities for men to do work—clinical and laboratory work, and so on—yet in many cases when young men came on to the asylum staff they were so vague about their future plans they never really got started on such work, but dropped into routine habits. Dr. Rows had remarked that it was very questionable indeed if the doing of scientific work by assistant medical officers was for their advancement in asylum appointments. That was one of the great anxieties which young men had in regard to asylum appointments, and the uncertainty regarding the value of such work in gaining promotion had killed a great deal of the desire to pursue scientific research. Members must know of several men who had done excellent work and yet who had not received their due reward. (Applause.)

Dr. BOWER said he was sure all would recognise the value of the work which the Committee had done, and the importance of the Interim Report which they had now submitted. But, personally, he was sorry that the Committee had taken quite such a high line and brought in such a wide range of subjects, such as treatment of insanity in special and general hospitals, to complicate the acute crisis in the status of assistant medical officers of asylums. He feared it would overload the discussion, and might interpose serious delay in getting to business. Dr. Pierce

had said that the present was a very favourable opportunity because of the operations of the Insurance Act, and the altered conditions in regard to general hospitals. That was true, but he also thought that now was a very favourable opportunity for pushing the claims of assistant medical officers. The great difficulty in connection with improving their status was the fear of the committees going to their county councils and asking for more money, because, after all, it was more money which was required before their status could be improved. At the present time the committees could not get sufficient assistant medical officers to fill their posts, and so they were now in a better position to dictate terms, and the sooner advantage was taken of that position the better.

The first section was agreed to.

The second section, under the heading "The few facilities available for the study of psychiatry and for research," was then put.

Dr. THOMSON, speaking on Clause 2, as well as on the general question, said he agreed with what Dr. Bower said as to the danger of overloading the ship in this matter; and he saw that danger when Dr. Rows was making his opening remarks. If they were going to attempt to promote any such legislation with the view to the earlier treatment of incipient cases, or for the provision for voluntary borders—not, as Dr. McDowall very properly pointed out, such as obtained in clinical schools in the north—he thought their case, for all immediate practical benefits, would be practically hopeless. The Association had had some experience as to the difficulties of promoting legislation in various medical directions lately, and had had experience of the delays and the almost insuperable difficulties which were encountered. Therefore, if it was the wish of the Association that this Committee should be re-appointed, he thought the reference should be in some way curtailed; or if the re-appointment were made on the original full reference, the Committee should voluntarily confine its attention to the more immediate things, and those things seemed to him to be in the inverse order to that in which they were placed here. The President had ruled that the Report be taken section by section, and he, the speaker, thought the second section was within the meeting's immediate purview, and that it would be desirable for medical superintendents to bring this question before their respective committees. That matter could, with some satisfaction, be approached at once. He approved of Section 2, but he could not speak in the same way of Section 1.

Dr. SOUTAR said the Committee had felt very strongly that the obligation lay upon two parties. They desired that better and more efficient service should be given by the medical officers of asylums, that they should have the opportunities for equipping themselves to give that better service; but that that better service would demand from the authorities better payment, better social position, and so on. But the two were absolutely inter-dependent; that they were not there simply to ask and demand, because they happened to have a favourable opportunity, larger pay and opportunities, but to say that when better equipped they could give better services, and so the result would be a better position for medical officers. There was a mutual obligation.

The second section was agreed to.

Section 3: "The unsatisfactory position of assistant medical officers in respect to professional status, prospects of a career, and conditions of service."

Dr. THOMSON said that those who had served on the old Diploma Committee were not without hope that the methods of making appointments might be materially altered now if the asylums could obtain gentlemen who had obtained that diploma. It lay with the senior men to instruct public opinion and their committees; and it was the hope that in the future there would be men coming forward with at least the stamp or definite indication that they had studied and were suitable candidates, so that there might be an end of this haphazard method of appointing assistant medical officers. It must be very gratifying to those who worked on the old Diploma Committee to find that candidates were now presenting themselves who had obtained this diploma, and he hoped that in time there would be sufficient candidates to do away with the present unsatisfactory way of making the appointments.

Dr. CLARKE said that though he was a member of the Committee he did not see eye to eye in regard to the whole Report. His feeling was in the direction indicated by Dr. Bower and Dr. Thomson, that there was an overweight of subjects. It

was agreed that something should be done in regard to cases of acute insanity, but they did not want something which would require Parliamentary legislation before anything was done at all to remedy existing hardships. The question dealt with in paragraph 2 was felt to be coming along, but it was no good to create facilities for study without at the same time creating a career for the men, for without the latter, good men would not be induced to enter the service. He considered that now was the time for making the service attractive and to do what was possible to get good men. Good men would want to learn, and they would learn. But if the service were allowed to remain unattractive good men would not enter it. What the Committee should aim at was to make the career such that it would attract good men. The criticism made was that the service endowed the lazy man, who would do as little as he could. If a man were lazy and not fit for his post, he should go; but one could not do anything with the man who was on the border line. What was wanted was that medical superintendents should educate their lay committees, in order that the posts should be filled by men who were interested in the subject. He would like the Committee to concentrate on No. 3, because if anything was to be done it should be done at once.

Dr. M. ABDY COLLINS expressed his disagreement with the last speaker. While he agreed that it was important to avoid overloading the Committee, he thought the word "attractiveness" also applied to the work there was to do. Whatever salary might be offered, or other inducements, the proper type of man would not be secured if his prospect was to look after some 400 chronic patients, with no encouragement to engage in any kind of real work. For that reason, he considered it would be a mistake to separate these two things. He did not think any great legislation was necessary to improve the facilities for research in asylums. As Dr. Clarke said, asylum service was crabbed because it was poorly paid and because its prospects were poor also, the men being left to vegetate, and, from the intellectual standpoint, to become covered with moss. It was said that if one went into asylum service one fell asleep, and went on sleeping; and he would be very sorry to see the reference to those facilities for research taken out of the Report now presented or out of the scope of the Committee. He did not know whether any system existed in this country of making appointments which would give satisfaction: he had not heard of one. Every branch of life was in exactly the same position in that respect. What was done in Germany and in France was little or no improvement on what was done in this country. Possibly the German method was to some extent an improvement. In appointing medical officers of health candidates were supposed to have certain qualifications, but everyone knew it was not always the best man who secured the appointment; and whatever care was exercised, it was difficult to get appointments made with satisfaction. In that matter, he thought examinations were hopeless. As anyone knew, attractive posts were very rare, and it might be said that the more attractive the senior posts were made the more stagnation there was. But there was room for a greater number of attractive posts, and a movement had been carried out in certain services already. Compelling officers to live unmarried was very regrettable, and the case which was mentioned in the discussion, in which a man after fifteen years' service could not obtain married quarters, was nothing more nor less than a public scandal. He had the opportunity of reading the report in the local paper of that discussion, and what struck him about it was that after the discussion had been proceeding for three quarters of an hour it was thought advisable to send out for information as to what they were talking about. The earlier speakers in that local discussion did not know whether it referred to one man or to three men, or the length of service, or whether it was necessary for him to live in the asylum or not. Some compared him with a plumber or a tinsmith. How such a discussion could have taken place and been reported in a public paper without causing more comment than it did was strange.

Dr. BEDFORD PIERCE asked whether the Report was approved by the Association. With reference to the scientific spirit, he had not had an opportunity of conferring with Dr. Rows, but he believed Dr. Rows did not intend to use the word "scientific" in any narrow sense implying only pathology, or bacteriology, or vaccines, or such like. But what he did think was needed was a much more serious study of the needs of the patients in the widest possible sense. It was impossible for any one man to excel in every direction. What was required was

that the medical directors of the institutions should be in sympathy with many branches of knowledge, and thus to be truly scientific men.

Dr. NORMAN suggested that in the matter of salaries some investigation should be made into the salaries of superintendents and a comparison made with those of assistant medical officers. He did not mean to suggest by that that the superintendents should be paid less, but the comparison might assist a levelling-up process. It was obvious that the assistant medical officer, whose salary ranged from £235 to £338, often had to take charge of work for which his superintendent was responsible, and hence it was work which caused him considerable anxiety.

The adoption of the Report as a whole was then put and carried.

Dr. BEDFORD PIERCE asked that the Committee should have power to add to its numbers, and this was agreed to.

Dr. SOUTAR proposed "That a copy of the Interim Report of the Committee appointed to consider the Status of British Psychiatry and of Medical Officers be sent to the Lord Chancellor, the Home Secretary, the Lord Chancellor's Visitors, the Commissioners in Lunacy, the governing bodies of asylums, licensed houses and registered hospitals, and to such other persons whom it may seem to the Committee to be desirable to approach." The purpose of that resolution, he explained, was to bring to everybody interested in this matter the information contained in this Report. Probably many of them were in absolute ignorance of the conditions, and that had been shown in the discussion which Dr. Collins mentioned. It was an exhibition of ignorance on the part of people who ought to have been informed; and it would be a matter of very much importance that this Report should go forward to the various bodies in order that they could not plead ignorance in future.

Dr. THOMSON seconded.

Dr. J. STEWART asked that a copy be sent to all assistant medical officers, because otherwise it was possible some assistant medical officers might know nothing of it.

On the suggestion of the PRESIDENT, he agreed that that should be left to the Committee, as all those gentlemen who were members of the Association had already received a copy of this Report.

Dr. COLLINS thought that the medical press should be included.

Agreed.

The proceedings then terminated.

#### THE DINNER.

The Dinner was held at the Monico Restaurant on Wednesday evening. The PRESIDENT (Dr. JAMES CHAMBERS) occupied the chair, and among the numerous company were the Lord Mayor of Cardiff, Sir Thomas Barlow, the Hon. John Mansfield, Sir James Crichton-Browne, Sir John Jardine, M.P., Sir George Newman, Sir John Collie, Sir George Savage, Sir David Semple, Dr. Nicolson, Dr. Needham, Dr. Marriott Cooke, Mr. MacLeod, K.C., Mr. Trevor, Dr. Hubert Bond, Dr. Dawson, Dr. S. F. Loughheed, C.M.G., Dr. Longstaff, Mr. Oules, R.A., Dr. Soutar, Dr. Hayes Newington, Dr. Collins, and a number of Past-Presidents.

#### TOASTS.

"The King," "The Queen, the Queen-Mother, the Prince of Wales, and the other members of the Royal Family," were proposed by the President and were loyally and heartily honoured.

#### "THE MEDICO-PSYCHOLOGICAL ASSOCIATION."

THE RIGHT HON. THE LORD MAYOR OF CARDIFF: Permit me, at the outset, to thank you for the kindness which you have extended to me in inviting me to your festive board this evening. As a layman who has taken some interest, during the last twenty years, in the administration of the—I prefer the modern title—mental hospitals of this country, I am very pleased, Mr. President, to learn of the

good work that the Medico-Psychological Association is doing, more especially with regard to the training of nurses. I think this is a splendid work, and I am speaking from my personal experience in Cardiff, where we have not one nurse who is not either training for the certificate or has taken it. Also, may I say in regard to the assistant medical officers, that I understand you have a certificate which is awarded to assistants, and you are desirous that they should equip themselves in such a way that they can take this certificate. I believe that there are several universities which are giving diplomas for this particular work. All this must be for the good of the patients under your care. I would like to see the position of assistant medical officers improved—(Hear, hear)—and I hope you in this Association will do all you can to bring before the various authorities—because, if I am inclined to criticise anybody to-night it is my brother colleagues representing the various authorities, who are rather slow, to my mind, in seeing that everything should be done—that it is not a question, or should not be, of pounds, shillings and pence, but that it should be a question of treating the patients in the most effective way at the earliest possible moment, rather than one of keeping down the expenditure of institutions. I am proud to belong to a corporation which has realised that it is its duty to give every possible assistance to the medical profession who are under its authority—(Hear, hear)—in dealing with the care of the insane. We are very fortunate in having as Medical Superintendent of the Cardiff Mental Hospital Dr. Goodall. (Applause.) The deep interest he and those associated with him take is telling very markedly in the treatment of the patients there. Now, most of you are aware that we had a Conference in December last, for the purpose of approaching first of all the Lunacy Commissioners and then the Home Office, with a view to having a Parliamentary grant-in-aid for research work in regard to the causation and the cure of insanity. I do not think that the Government will consider this an unreasonable request, because they have certainly established the principle in their recent Insurance Act in the direction of dealing with tuberculosis. They have set aside a large sum of money for grappling with that disease, and I venture to say that the disease insanity is a very serious one, and does need the assistance of Parliament to help those authorities who are endeavouring to grapple with it in the most effective way possible. We are spending a good deal of money upon research work at Cardiff, and we would like to do a great deal more; but I can quite conceive the difficulties which many authorities would have from the standpoint of expense. I had the honour of taking a deputation to the Commissioners, whose sympathy we have in our desire to extend research work in connection with mental science. I believe they have expressed that view to the Home Office. I have yet to learn why the question of insanity should be regarded differently from any other disease, and I should like to see the laws in this country altered in this direction—that when people feel they are suffering mentally, they should be at liberty to go to an institution where a department exists for dealing with insanity or with any other brain trouble which has stopped short of actual insanity. I feel that a great debt is due to your Association for the work it is doing in this way, and I hope you will continue to give every assistance possible. I should like to say here that I hope the great Corporations in this country, and the members of the Visiting Committees appointed by these Corporations—and we look specially to the authorities in great university cities—will take up this question of research work in an effective way, and give every assistance in their power to the medical gentlemen who are desirous of giving their time, their energy and their talents, in order to assist in the discovery of the causation and in promoting the effective treatment of insanity. There is an illimitable field, and every day, I have no doubt, cases are coming before you which cause you to think and consider how best to deal with them. I should like it to be recognised that all these institutions in this country are not places of detention primarily, but that they are mainly places of cure. (Applause.) I should like to see the stigma attaching to the term "asylum" removed as much as possible; let us deal with insanity as a mental complaint or disease. If that were done it would in a great measure lessen the suffering of relatives and friends. For there is a general idea—I do not know whether you are aware of it, but I am—among the laity that once a person gets an affection of the brain, or, in other words, goes out of his mind, there is no hope for that person. I am told by those in the profession that that is absurd, and that there are many complete restorations; I feel sure that we shall get co-operation in asking Parlia-



ment to assist us to carry on this work. I am sorry if I have kept you too long, but I felt I would like to state my views fully. As a member of a Corporation it has always been my desire, as it always will be, to give every assistance possible to the medical profession, especially in this particular branch, because I happen to be the chairman of a mental hospital committee, rather than to stand on one side and criticise, as some people are prone to, and grumble about the expense. I am asked to couple the toast with the name of your President, Dr. Chambers, which I have much pleasure in doing. (Applause.)

The PRESIDENT, in response, expressed the thanks of the Association to the Lord Mayor of Cardiff for his kind appreciation of their work and aims. He said that many of the members present cherished a lively recollection of their visit to Cardiff and its Mental Hospital. They were much impressed by the zeal and knowledge displayed by the Hospital Committee, and they realised that Dr. Goodall's lines had fallen in pleasant places. It was a source of great satisfaction when men holding high civic positions espoused such a cause as the advancement of scientific research, and he felt that a rich harvest of benefit would certainly accrue from their able and influential advocacy. The members of the Association knew that in their present activities they had the sympathy and support of the official heads of their department, and latterly they had had very definite proof of a similar attitude on the part of the leading members of the general body of the medical profession. In this connection, he wished to express the indebtedness of their Association to their honoured guest, Sir Thomas Barlow. (Applause.) The coming year would be one of especial interest if the beneficent provisions of the Mental Deficiency Bill were placed on the Statute Book, and he trusted that a new and better era was about to dawn. Since the Association last held an annual meeting in London it had met in Edinburgh, in Dublin, and in Gloucester, and in each of these cities he had been struck by the well-informed interest taken in its special aims by the medical profession generally and by the laity. This attitude he regarded as a striking testimony to the work accomplished by Dr. Macpherson, Dr. Dawson, and Dr. Soutar, and by their predecessors, Sir Thomas Clouston, Dr. Conolly Norman, and Dr. Needham. As he had had a long innings at the meeting that afternoon he would not trespass further, also he did not wish to encroach on the toast of "Our Guests," but he would like to say that the Association felt honoured and encouraged by the presence of the distinguished guests they had the privilege and pleasure of entertaining that evening. He concluded by a renewed expression of thanks to the Lord Mayor of Cardiff for the terms in which he had proposed the toast, and to the company for their reception of it.

#### "OUR MEDICAL BRETHREN."

Sir JAMES CRICHTON BROWNE, in submitting this toast, said he felt he occupied a somewhat patriarchal position with regard to the Association. When he became a member it was a little friendly coterie, and it moved about from year to year, holding its meetings in the vicinity of the various asylums. Its members were familiarly known as the "wandering lunatics." But even then the Association had attracted some attention by those brilliant essays of Maudsley, which appeared in the *Journal of Mental Science*, and since then it had grown and extended marvellously, and attained a position of great public usefulness and influence, and had established intimate relations with its medical brethren of all denominations, some of whom always gratified it by their presence at its banquet. The Association had, he believed, done signal public service, which had not yet been sufficiently recognised. He would by no means under-estimate the work done by the public lunacy officials in this country; he was not likely to do that. He claimed that the Association had been mainly instrumental in ameliorating the condition of the insane, in improving the organisation of our lunatic hospitals, and in advancing medico-psychological science in this country during the last fifty years. It took up at once, and had enormously extended, that humane system of treatment which, originating with Pinel and Connolly, had secured to the insane spontaneity and personal consideration such as were at one time inconceivable; and it had done that without in any degree jeopardising public safety. It had undertaken the training and education of our mental nurses and attendants, and tested their efficiency; thereby it had introduced into asylum wards an atmosphere

of skill, efficiency and sympathy which was formerly unknown to them, and it had provided a body of expert nurses and attendants, who enabled the private and the domestic treatment of mental disease to be carried on in a way which was formerly impracticable. The value of their services was, he thought, fully recognised by the medical brethren of this Association. It had encouraged and promoted in every possible way scientific research and investigation. When he looked back on the volumes of the *Journal of Mental Science*—he believed there were fifty-eight of them—recording the work of the Association, he was struck by the way in which it had maintained the true scientific spirit throughout and had adhered to scientific methods. He believed it was that which had commended it to the goodwill of its medical brethren. Those who studied mental phenomena and symptoms walked in slippery places; they were tempted from time to time to stray into those dubious regions of "psychical research," and to exchange the dry but nourishing food of rigid induction for the rare and refreshing fruit of psychical inquiry. Only in the last month, in London, we had Prof. Bergson telling us that if Kepler and Galileo and Newton had been psychical researchers instead of physicists we should have reached ideas of which we could not now conceive. He quite believed that (Laughter); and it was said we had attained, through psycho-suggestion, to a system of therapeutics far in advance of anything which had hitherto been reached. He believed all in that gathering were devoutly thankful—and he was sure their medical brethren were thankful—that Kepler and Galileo and Newton were not psychical researchers, but stuck to physicisim, to that measuring and measuring and measuring which Mr. Arthur Balfour said the other day was at the foundation of all scientific discovery, and which was the basis also of practical application. They were devoutly thankful that Kepler, Galileo and Newton, profiting by the suggestions that Nature was constantly pouring upon us, kept clear of that psycho-suggestion that, in many of its forms, was so futile and paralysing. The medical psychologist fully realised the utility of suggestion, but he also recognised its limits. He appreciated the value of the psychological conception in the analysis of those infinitely complex mental phenomena which he had constantly to study, but he adhered in the main to those methods which, he was sure, commended themselves to their medical brethren, the anatomical and physiological investigation of the brain and nervous system and experimental methods of research. He felt sure it was by the scientific investigations of the Association that it had raised the status of its members, that it had earned the goodwill of medical brethren, and he fully hoped and believed it was a body of specialists who were bent upon keeping abreast of everything going on in every other department of medical science, and at the same time they were bound to keep in touch with all their medical brethren. He believed the time had come when the Association must be consulted, as the Royal Society was, by the Government on questions affecting the insane and the mentally deficient in this country, and especially in regard to lunacy legislation. (Applause.) The Association consisted of experts; they had a special and unique knowledge, and they were capable of giving such assistance. Had this Association, or had any experts, been consulted about lunacy legislation in the past, many serious blunders would have been avoided. There was one subject upon which he thought their medical brethren—whose health he was proposing—were entitled to look for a judgment from this Association, a subject of great public interest of late, namely, forcible feeding. The members of that Association were entitled to speak with authority on this subject, because he believed there was not a member of this Association who had not performed that operation—if operation it could be called—hundreds of times. He had himself performed it hundreds of times, and he had seen it performed thousands of times, and he was sure his hearers would agree that it had saved thousands of human lives. (Applause.) They would also agree that it was grossly wrong and misleading to describe that procedure, as it had been described, as painful, dangerous and cruel. (Applause.) It was not a painful operation if skilfully performed. No doubt it was very disagreeable; it might cause transient nausea, but if properly performed it was not painful in any true sense; and it was infinitely less distressing than those pangs of hunger and thirst which it alleviated. Edgar Allan Poe said:

" . . . . . of all tortures the worst  
Is the horrible, horrible torture of thirst."

And there was not one case in a hundred in which the operation might not be performed without the slightest risk, even under the rankest resistance of a lunatic. He did not know what was the technique of the operation in prisons, but he knew that in lunatic asylums it had proved to be an inestimable boon. It had been the means of restoring to health and to usefulness an incalculable number of afflicted beings. Perhaps he ought to apologise for referring to such a subject as forcible feeding after such a banquet as this, which they had voluntarily partaken of under such pleasant and æsthetic conditions; but he thought the time had come when something should be done to correct the erroneous notions upon this subject which were prevalent. He considered it was the duty of the experts in the Medico-Psychological Association to say something on the subject. As he had said, they were always gratified to see their medical brethren at that board, and especially to see among them leaders of the profession, and there were several such present that evening. Among them, standing out signally, was the titular leader of the profession, the President of the Royal College of Physicians. Sir Thomas Barlow was not only their titular leader, but he was so in very fact, for he had all those qualities which constituted the great clinical physician. He had not only high scientific attainments, but great learning and consummate skill at the bedside. He had the amiability and kindness of heart which endeared him to all his professional brethren. Sir Thomas Barlow had a very heavy task before him in the next fortnight as President of the great International Congress which was to be held in London, and he did not doubt that under Sir Thomas's guidance and leadership that Congress would prove a triumphant success, and redound to the honour and glory of London and of England. He asked those present to drink with him the toast, "Our Medical Brethren," coupled with the name of Sir Thomas Barlow. (Applause.)

SIR THOMAS BARLOW said that on behalf of his medical brethren he desired to return sincere thanks to the Association for the toast which was proposed by Sir James Crichton Browne, and which had been received with so much heartiness. In his speech Sir James had delivered a very fine apologia for the Medico-Psychological Association, and likewise for the position in society as well as in the medical profession itself of their arm of the service. He confessed that when his friend, Dr. Hayes Newington, wrote and asked him to respond to this toast, his thoughts did not extend to the very interesting, charming and instructive paths along which Sir James's speech had led them. He confessed that the form of the toast arrested him immediately, and, without being sentimental, he admitted that it had aroused a little emotional throb. For the expression "medical brethren" suggested to him what he might be permitted to speak of as the peculiar Christian virtues of the doctor. It made one think of the charity that covered a multitude of sins, which thought no evil, that bore the afflictions of one's brethren. And it made one think in a more concrete and simple form of the way in which many a senior doctor could help his younger brethren, could explain the way in which they were often misconstrued by the public, and could say a word to disparage or disillusionise the cruel interpretation so often placed upon their line of action, and of the many ways in which a splendid comradeship which never said a word about itself, did not proclaim itself from the house-tops, was yet ready to help a fallen brother when he was down in the ditch. That was the line of thought which sprang to his mind when Dr. Newington wrote to him. And he did think that those homely Christian virtues, which he considered belonged especially to doctors, should, in their flowing cups, be now and again remembered. And then—to change the line of thought—they often grumbled, and scolded and chafed at the growth of specialism; they did not sufficiently reflect that it was inevitable, that it was one of the conditions of a high civilisation; that the division and distribution of work must come into operation as we grew in knowledge and in power. But there could be no doubt that they would not change that if they could, and they could not if they would. Specialism had its dangers—if he might say so—and it was in that connection also he thought it was good and right to think of that toast—"Our Medical Brethren"—and to do more and more, as time went on, to combine the branches of the profession into a living unity. (Hear, hear.) For there were two kinds of specialists: there was the poor specialist who was always trying to magnify specialism, to show how that he knows the various things, which were esoteric, which belonged to him, and which nobody else could know. There was also the greater

specialist, he who was always striving after the unity of medicine, the unity of pathology, the unity of treatment, and the unity of life altogether. (Applause.) That was one of the things which his pondering over the toast brought back again and again, and made one long for the greater communion, for consultation in the real and wider sense between every branch of the profession. And if there was one thing which seemed certain, it was that there was no possibility of real, wide, strong progress without the different arms of the profession working more and more with each other. Again and again, in his humble way, when it was said the fact of a surgeon being called in in consultation necessarily meant some ghastly operation was to be performed, he had protested, especially in regard to abdominal work, that to him as a physician the surgeon was not merely a man who usually performed a dexterous operation, but one who, by his experience and a study of various symptoms and signs, followed by the proof of how far those signs were reliable, had gained an amount of knowledge which no physician should be ashamed of learning from his brother. And the same with the medico-psychologist's most important department. Again and again he had said that they would, in his line, be hopeless and helpless if they did not have, in connection with many cases, the help which alienists could bring to bear by their special knowledge. But, on the other hand, it was only fair to say that he believed one of the great advantages of a far more intimate consultation would be that now and again the signs of beginning mental disorder in connection with acute specific diseases and chronic diseases before they came to the asylum stage was something which the alienist might learn from the general physician. He thanked the Association from his heart for having brought forward the toast in that form, which spoke the principle of inter-communion between different branches of the profession. He also thanked them for their extreme kindness in asking their brethren to be present.

"OUR GUESTS."

Dr. SOUTAR said he very gladly responded to the request to propose the toast, "Our Guests," because it was one which required no ingenious argument nor any art to commend it to this company. He hoped that long before that time of the evening the guests had felt, from a pervading spirit of hospitality, that the Association highly appreciated their presence, and gave them the heartiest welcome. It was, therefore, unnecessary for him to spoil the charming eloquence of that hospitality by adding words of his own. What struck one on looking down the list of guests was that it included distinguished men drawn from many different pursuits, from almost every activity of life, and yet they were all men greatly interested in the specialty and in sympathy with its work. This list was the most complete and absolute refutation of the idea that the specialty was of that narrow and isolated sort to which the President referred. They were in touch with human activities at every point, and the presence of the evening's guests was strongly indicative of that; and not only so, but the eloquent speeches of the guests had confirmed that in the most emphatic words. There were amongst them representatives of the Lord Chancellor's Visitors and of the Commissioners in Lunacy. These gentlemen were probably known personally to a larger number of those present than were any of the other guests, for they had the pleasure and advantage of welcoming them to their places in the country once or twice a year. And he understood that those who had town houses had the advantage of seeing them oftener than that. (Laughter.) They claimed those representatives as part of their own body, for their interests were the Association's, and there was the strongest indication that they were supporting and furthering not only the work but the personal interests and welfare of the members. There were also present representatives of the great body of practitioners; and Sir Thomas Barlow had delivered a most charming speech, claiming relationship between this specialty and medicine generally. Their claim was that their work was broad-based upon the general principles of medicine; they were more and more urging that they should have opportunities for pursuing their particular work upon these lines, and it was gratifying to feel that they had the support of Sir Thomas Barlow and those who practised other branches of medicine in the strengthening of that claim. In addition, there were representatives present of great progressive communities: for example, the Lord Mayor of Cardiff and the Chairman of the

London Asylums Committee. They were representative not only of their own communities, but, he was glad to say, also of other communities throughout the country which had come fully to recognise that good health was the most valuable asset of a nation, and that no longer would there be divorced from considerations of public health that particular form of illness which it was the concern of members of the Association to deal with. He thought from what had been heard that evening, and from many other indications, that before long, mental disorder would claim and occupy its right and proper place for consideration among the various subjects of public health. He did not need to go through the list of the guests; they had all shown appreciation of the work, and for that appreciation members were deeply grateful. This interchange of thought between those who approached the problems of the national health was, he thought, fraught with gain to all from different standpoints. He would like to mention one of the guests, in that he had done a great service in having perpetuated for all time the Association's Treasurer, namely, Mr. Oules. He was asked to associate with the toast the name of Sir George Newman, to whom they were indebted for particular assistance in the work of one of the Committees of the Association this year, namely, that which considered the question of the medical inspection of school-children. In many ways Sir George's assistance was of the greatest value to the Association, particularly in regard to that very excellent schedule with which he had provided them. By a few alterations the Committee believed they had improved it, and Sir George agreed that it was an improvement. He had also to connect with the toast the name of Dr. Longstaff, who, he believed, had now deserted medicine, but he had carried into citizenship the training which he had had as a doctor, thereby importing into public life knowledge and qualities of the highest value. (Applause.)

SIR GEORGE NEWMAN said that he responded with pleasure and alacrity to the invitation to express, on behalf of the guests, warm and sincere appreciation of the Association's hospitality. It was true, as the proposer had said, that those present at that Board differed in their representation, but all were united in a common wish and hope, namely, for the prosperity and success of this great Society. For himself, he felt under a great debt of obligation to the Society for the way in which it had assisted the Board of Education in contriving a scheme by which it should be possible to simplify and make more comprehensive the diagnosis of that very difficult and nebulous condition which was designated feeble-mindedness. But apart from that, if he might say so as one connected with the Public Health Service of this country, he felt they were under an obligation to any society which either assisted the Government, or created a public opinion, or even educated the medical profession in the direction of recognising the vital importance of medico-psychological questions. He hoped for the Society—and he did not doubt that his fellow-guests hoped for it too—a very long and successful career in those three directions. There surely had never been a time when the need for such an association had been so paramount as to-day. They were in the throes of Mental Deficiency Bills, and he agreed with Sir James Crichton Browne in saying that if it had been possible for this Association to have been consulted earlier in the drafting of these Bills, there would have been a much simpler and happier voyage for them. He wished again to say how warmly the guests appreciated the Association's generous hospitality. (Applause.)

DR. LONGSTAFF said that he had great pleasure in adding his expression of the guests' appreciation of the Association's hospitality. It was always difficult to address experts on their subject. He gathered from some of the remarks of previous speakers that if those whose business it was to put into practice the art of Government would, before proceeding to their artistic experiments, make a few scientific researches, they would be likely to find their results better. He was disappointed with the speech of Sir James Crichton Browne, because he had hoped that with such a wonderful constellation of diseased mental talent present (Laughter) he might have had a diagnosis of the ailment which had been so prevalent in one sex in this country of late; but he supposed they would have to wait until Government applied to this learned Association to state their opinion on the subject. He felt the frightful potentialities of a body like this Association; anything which one said in a moment of folly or of repletion might possibly be entered against one on some formal Government document as direct evidence of a condition of mind which, if not to be recorded in the old-fashioned term

"lunatic," might be described in the not less comprehensive expression, "a person of unsound mind." He therefore hoped his words would be adjudged to be merely a temporary foolishness, which would pass off when he returned to the open air. If he did come before a member of the Association, he hoped there would be extended to him those charitable feelings which Sir Thomas Barlow had so well said should prevail throughout the profession.

Sir GEORGE SAVAGE proposed the health of the President in graceful terms, and Dr. CHAMBERS briefly responded.

During the evening the "Westminster Singers" gave a number of pleasing glees and part songs.

#### INTERNATIONAL CONGRESS OF NEUROLOGY AND PSYCHIATRY.

[Communicated by Dr. G. E. Shuttleworth.]

THE third International Congress of Neurology and Psychiatry was held in the Congress Hall of the exhibition at Ghent from August 20th to 26th, under the presidency of Dr. CROCQ, Professor at the University of Brussels, and of Dr. GLORIEUX, Inspector-General of Belgian Asylums and Colonies for the Insane. Among those who attended were Dr. Aldren Turner, representing the Royal College of Physicians and the Government; Dr. Hubert Bond, one of the Commissioners in Lunacy; Dr. L. R. Oswald, Physician-Superintendent of the Glasgow Royal Asylum, representing the University of Glasgow, and Dr. Mary Booth, of Sydney, Australia. Dr. G. E. Shuttleworth, delegated by the Medico-Psychological Association of Great Britain and Ireland, was made a "Président d'Honneur," and as such occupied the chair at one of the sittings.

The Congress was officially opened on behalf of the Belgian Government by the Minister of Justice, M. HENRY CARTON DE WIART, and an interesting inaugural address was delivered by Dr. CROCQ on muscular tonus, reflexes, and contracture. Papers followed, on successive days, on the colloidal structure of the nerve-cells and their variations in normal and pathological conditions, by Prof. MARINESCO of Bucharest; on syphilitic spondylitis and allied conditions, by Prof. SACHS of New York; on the mechanism of regeneration in the nervous system, by Prof. DUSTIN of Brussels, and other neurological papers.

There were several interesting discussions, including those on the treatment of progressive paralysis, introduced by Dr. PILCZ of Vienna; on the influence of internal secretory glands in relation to psychology and mental pathology, by Prof. PARHON of Bucharest; on the electric treatment of exophthalmic goitre, by Dr. PFEIFFER of Levernois; on the treatment of nervous hyper-excitability by organic bromides, by Dr. BERRY of Paris; and on hypnotism and suggestion in mental disorders, by Dr. VAN DE LANOITTE of Verviers.

Of more purely psychiatric interest were papers by Prof. MOREIRA of Rio de Janeiro on the mental and nervous maladies of Brazil; by Dr. BÉRILLON of Paris on the syphilitic neurasthenias; and on states of regression of the personality, by Dr. SOLLIER of Paris. A study of madness in the Old Testament was contributed by Dr. ROUBY of Algiers.

The treatment of abnormal children, and of adult defectives in colonies, has attracted much attention in Belgium, and papers relating thereto were contributed by Prof. FERRARI of Bologna, by Dr. DECROLY of Brussels, and Prof. WEYGANDT of Hamburg. An interesting morning was spent by the Congress in a visit to the St. Joseph Institution for Abnormal Boys at Ghent, where ingenious methods of education and training were demonstrated. The communal lunatic asylum, Le Strop, was also inspected.

The Honorary Secretaries, Dr. D'Hollander of Mons, and Dr. Boulenger of Brussels, deserve much credit for their satisfactory arrangements.

BRITISH MEDICAL ASSOCIATION—ANNUAL MEETING AT  
BRIGHTON, JULY, 1913.

NEUROLOGICAL AND PSYCHOLOGICAL SECTIONS.

[Communicated by Dr. Lougheed Baskin.]

THE ANNUAL MEETING of the British Medical Association held at Brighton this July was considered by the large number of medical men who were present to be one of the most successful on record. The splendid sunny weather and the charm of the general surroundings contributed not inconsiderably to the excellent tone and *bien-être* so much in evidence.

Neurology and psychology were again combined in a common section, and, judging by the crowded state of the room, and the animation and interest displayed during the discussions, the memory of this meeting should for long linger in the minds of those present. As a prelude to the meetings of the Section of Psychiatry, held under the auspices of the International Congress, the general trend of the subjects discussed showed that the investigation of the subtler modes of consciousness and their analysis was the fashion. Notwithstanding the marked favour shown to treatment of various neuroses and psychic morbidities by hypnotism, either assisted by psycho-analysis or drugs, there was an altogether admirable restraint in advocating the use of these therapeutic agents, and the note of warning emphasised by several speakers should carry beneficial weight with those who are inclined to find in the popularising of occult methods of treatment a panacea for intemperance, psychasthenia, neuroses, and various forms of psychic trauma.

With the PRESIDENT (Dr. JAMES TAYLOR) in the Chair, the meetings opened on Wednesday, July 25th, in the rooms of the Technical Training College.

Sir GEORGE SAVAGE, speaking on the subject of "Sleep and the Treatment of Sleeplessness," said he did not think we could really speak of any one thing which could be considered to be the compelling cause of sleep; yet by studying the conditions of sleep we may better understand its disorders. It had been said that the lowest forms of animal life do not require sleep. That, he thought, is begging the question, for with them there must be rest and rhythm in their lives, and that is what sleep really is in the higher animals. Sleep is certainly essential to man, and depends on the complete rest of some parts of the higher nervous system. The brain can no more rest as a whole than can the heart; but parts of the brain can and do constantly rest. Normal sleep depends upon a healthy supply of healthy blood and a normal condition of the nerve-cells, more particularly those of the frontal lobes. While recognising that sleep may depend on several conditions, he thought that blood-supply is the most important. In suggesting lines which the discussion might take, Sir George said that some members might wish to discuss the number of hours that growing children should sleep during the years when their education is going on. Personally he had expressed strong views on the need of prolonged sleep. We all eat and drink more than we require; and he believed that we could do with less sleep than we take. "But sleep is a pleasant pastime, and it is better than fussing objectlessly. (Laughter.) The early riser is like some teetotalers—filled with flatulence and self-importance." (Laughter.) Sleep readily falls into regular habits, and it is well to establish a good habit in this respect. Sleep differs greatly in quality. Sir Arthur Helps describes a city where sleep of various colours might be obtained; and dreamful sleep may after all be as restful as dreamless sleep.

Discussing the means of overcoming sleeplessness, Sir George said he was glad to find that patients themselves have a healthy dread of drugs, fearing the establishment of the drug habit. Yet drugs have to be used in many cases, and he would like to lay down a few rules for their use. His advice was: Avoid the opiate series as much as possible. In giving sedatives or hypnotics, vary their use. At present the sulphonal and veronal series are most in favour, and there is no doubt of their value. The general idea that the deprivation of blood from the brain tended to sleep, and that therefore food causing a flow of blood to the stomach was useful, had long been recognised. He constantly recommended some slight stimulant with light food in cases of sleeplessness. He had found that stout

and a biscuit is very useful in this respect. More recently, he had been in the habit of recommending patients who complained of sleeplessness of the type in which they went to sleep easily, but woke early and then did not fall asleep again, to have a thermos flask with some hot fluids such as meat extract by the bedside. They had thus got the food ready to hand without the trouble of having to light any lamp and warm the food. With regard to stimulants, Sir George pointed out that, as in the case of opiates, there is always a danger in recommending patients to take stimulants regularly and habitually. He had found, however, that a mild stimulant—"a night-cap, if you like"—has distinctly beneficial effects. One experience, which he had found was pretty constant, was that many of those patients who woke early, if they took a stimulant on going to bed fell off to sleep at once, but woke almost sooner than they would otherwise have done, and therefore little good had been gained unless they took a stimulant again.

Touching on hypnotic suggestion as a means of inducing sleep, Sir George said that he had found hypnotism produced by what he called a modified "hush-a-by baby" method to be very effective in regard to some children. He had also seen remarkable results from hypnotic suggestion in cases of unrefreshing sleep—mostly women, who said they were insensible for hours together, but woke unrefreshed. He believed that sleeplessness due to alcoholism and to drug habits had also been satisfactorily treated by hypnotic suggestion.

With regard to the general treatment of sleeplessness, Sir George said he was not fond of prolonged bed rest, except in cases of marked malnutrition. Change of travel and motor riding are useful. One has to find out whether the person is better by the seaside or not. Some people cannot sleep well by the seaside; others cannot sleep upon a height. Individual peculiarities have to be considered. For instance, he found that in his Hampshire cottage he could not sleep if he lay with his head to the south end and his feet to the north end of the bed; but with his head placed in the other direction he slept satisfactorily. He believed, however, that such an experience is not altogether exceptional.

Dr. W. H. BUTTER STODDART put forward the theory that one factor of sleep is the temporary poisoning of the nervous system by carbon dioxide. His observations went to show that the habits of the lower animals and of human beings are very much alike in this respect. Animals who live in holes, for instance, will withdraw themselves after a meal into their stuffy caves, and there they will sleep. Other animals will bury their heads in their fur, generally in some soft part of their bodies; a bird will bury its head in its feathers when it wants to sleep. The stout old gentleman, before he enjoys his after-dinner nap, will cover his face with his handkerchief; and many people will not sleep until they have buried their heads in the bedclothes. In each case, apparently, the impure air had tended to produce sleep. To test this further, Dr. Stoddart mentioned that he had caused a person sleeping under these conditions to inhale oxygen, conveyed noiselessly and in such a way that the current did not fall directly on the face. The result was that the sleeper awoke after thirty or forty respirations.

Dr. Butter Stoddart also displayed some interesting diagrams showing the varying degrees of anæsthesia produced in different parts of the body by sleep.

Dr. C. HUBERT BOND (one of the Lunacy Commissioners) spoke of various methods successfully adopted for the treatment of sleeplessness in a big asylum with which he had been officially connected. Among these methods were open-air sleeping on balconies and continuous baths, the patients sleeping in the baths, and sometimes spending two or three days in succession therein. But perhaps the most curious form of "lullaby" mentioned by Dr. Bond was the reading by a nurse to a patient. The nurse never read anything that was interesting, but always spoke in the most monotonous and droning voice that she could produce. The effect upon the patient was marked.

He was followed by Dr. CONSTANCE LONG, who laid admirable stress on the dangers of hypnotism in unskilled hands, and explained that the fear of it in the public was largely due to its improper use on the stage and indicated its restriction in practice to the medical profession.

Dr. THOMAS JOHNSTON followed on the same lines, as also did Dr. EDER, who advised a combination with psycho-analysis, and Dr. TOM WILLIAMS (Washington) showed how the causes of sleeplessness were frequently discoverable without psycho-analysis, and advised a restriction in the use of hypnosis.



Dr. KNOWLES STANSFIELD referred to the blood-pressure in sleep.

Dr. ROBERT JONES expressed his strong conviction that boys and girls in our public schools do not get enough sleep. Children up to six years of age should have twelve hours' sleep. Up to sixteen years they should have ten hours' sleep—or the opportunity for it. With regard to the use of stimulants, Dr. Jones said that he had had some marvellously good effects from using a little dry wine, or Zeltinger, or port, or even stout; but he always mixed it with something that is abominable—such as malt extract, or some food that was not likely to create the alcoholic habit.

Dr. JAMIESON, of Australia, also spoke.

Dr. LORD, whose absence was due to indisposition, sent a paper in which he emphasised the physiological rest that was obtainable in profound sleep, even if of short duration. He made interesting reference to Dr. Wylie's scheme showing the order in which unconsciousness was reached, the peripheral stimuli, sound and light, being the first to be lost, and showed the importance of the visceral rest obtainable by some hours spent with the body in the horizontal position.

Thursday was given up to the discussion of "Vertigo: its Significance and Treatment."

Dr. RISIEN RUSSELL, who mentioned aural defect as the commonest cause, showed that it simulated neurasthenic vertigo, which was distinguished by the neurasthenic symptoms preceding the aural, which were bilateral. He referred to causes, as arterio-sclerosis, intra-cranial tumour, ocular, gastric and hepatic. Minor epilepsy resembled vertigo, and the latter had to be distinguished from tumour of the lateral recess of the cerebellum; vertigo, a frequent symptom of disseminated sclerosis.

Dr. HARRY CAMPBELL referred to lumbar puncture and electro-therapeutic treatment.

Mr. SIDNEY SCOTT did not find the bromides especially serviceable in treatment.

Dr. LEONARD GUTHRIE found it more commonly in children than was supposed.

Dr. ALDREN TURNER regarded many cases of vertigo as epileptoid in character.

Prof. BRADBURY placed gastric disturbance as the most common cause.

Dr. ASHLEY MACKINTOSH found vertigo in 25 out of 110 cases of disseminated sclerosis.

Dr. TAYLOR (President) referred to vertigo in sea-sickness, and indicated a form of treatment that had been found successful in some cases.

Drs. COLIN RUSSELL, SHORE, FISHER, HELEN BOYLE, GRAINGER STEWART, and Prof. ANDERSON also spoke.

Friday was devoted to reading papers and discussion.

Dr. EDER gave an account of the present position of psycho-therapeutics.

Dr. WILLIAM BROWN (King's College) gave an interesting account of a case of amnesia in which, by treatment with hypnotism and psycho-analysis extending over some considerable time, improvement and recovery were induced. The time-reaction (psycho-galvanic current) was an important test in unearthing the repressed complex which was associated with the amnesia.

Dr. TOM WILLIAMS's paper on "Fallacies in Mind Healing" gave an elaborate account of the various errors into which quacks had fallen from unscientific training, and the gullibility of the public in being attracted by plausible advertisement. He made reference to Christian Science and various American devices in mind-healing, referring to writings on the "will to power."

Dr. HELEN BOYLE spoke of the re-education system as being the best in combination with hard work, and the necessity for getting the "run of the patient's mind."

Dr. CRICHTON MILLER, referring to the "elimination of mental vacuity" in patients, showed where Weir Mitchell's system stops short.

Dr. CONSTANCE LONG referred to Freud's work in clearing the ground, and the amount of insanity in Roman Catholics.

Dr. JOHN MILLS gave his experience of insanity in Roman Catholics.

Dr. HUGH WINGFIELD read a paper on "The Treatment of Alcoholism by Suggestion," on which a discussion was maintained by Dr. FISHER (New York), Dr. Hubert Bond, who referred to the necessity of following up relapsing cases, Dr. TOM WILLIAMS, Dr. SHORE, and Dr. CRICHTON MILLER.

A paper with screen illustrations was read by Dr. WILLIAM BOYD describing

micro-organisms found in the blood and cerebro-spinal fluid in two cases of mania.

Dr. W. H. BUTTER STODDART mentioned that in a case of acute confusional insanity, where streptococci and diplococci had been found, katatonic signs were evident; also a case, that recovered, in which Gram-positive diplococci had been discovered.

Prof. ANDERSON (Galway) read a paper on "Reflexes in some of the Lower Animals," describing certain reflexes found in young dogs, fishes, crustaceans, and bats.

The meeting was terminated by a speech from the President, Dr. JAMES TAYLOR, who made kindly references to the work of the two Hon. Secretaries, Drs. Loughheed Baskin and Grainger Stewart.

#### INTERNATIONALE ZEITSCHRIFT FÜR AERZTLICHE PSYCHO-ANALYSE.

THE present year has seen the establishment of an important new journal of Freudian psycho-analysis, the *Internationale Zeitschrift für Aerztliche Psychoanalyse* (Heller & Co., Leipzig and Vienna), which, for orthodox Freudians, takes the place of the smaller *Zentralblatt für Psychoanalyse*. The latter journal is still continued, even with increased activity, but it is now the personal organ of its Editors (Drs. Adler and Stekel), who are no longer within the Freudian fold of psycho-analysis. The new journal is edited, under the general direction of Prof. Freud, by Drs. Ferenczi and Rank, and is the official organ of the International Psycho-analytic Association, of which Dr. C. G. Jung is President. It appears every other month, alternately with *Imago* (edited by Drs. Rank and Sachs), in which are discussed the bearings of psycho-analysis on non-medical fields, such as æsthetics, morality, education, religion, ethnography, and folk-lore.

The first number of the *Zeitschrift* is of substantial size (116 pages), and is of very varied interest, so varied, indeed, that there may be a question as to the strictly medical character of some of the contents. It opens with a paper by Prof. Freud, written in his usual illuminating and outspoken way, of "Counsels on the Technique of Psycho-analysis," more especially in regard to the time and money involved. The two following papers by Prof. Ernest Jones and Dr. Seif, on anxiety-neurosis, are dealt with in the Epitome. Dr. Federn begins an elaborate study of Sadism and Masochism, and Dr. Rank deals psycho-analytically with the ancient legend of the Matron of Ephesus, arguing that, so far from illustrating the inconstancy of woman, the story in its original shape displayed the wife's fidelity. There are shorter communications, dealing especially with infantile psychology and the interpretation of dreams, correspondence, reviews of books, a bibliography of current psycho-analytic literature, and the transactions of the International Psycho-analytic Association.

#### THE LIBRARY OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE Library is open daily for reading, and for the purpose of borrowing books. Books may also be borrowed by post, provided that at the time of application threepence in stamps is forwarded to defray the cost of postage. Arrangements have been made with Messrs. Lewis to enable the Association to obtain books from the lending library belonging to that firm should any desired book not be in the Association's Library.

The following books have recently been added to the Library:

White and Jelliffe.—*Nervous and Mental Diseases*, vol. i.

Dercum.—*Mental Diseases*.

Dr. Edward Mapother has been elected Honorary Secretary of the Library Committee for the coming year.

Application for books should be addressed to the Resident Librarian, Medico-Psychological Association, 11, Chandos Street, Cavendish Square, W. Other communications should be addressed to Dr. Edward Mapother, at Long Grove Asylum, Epsom.

BERNARD HART.

## NOTICES BY THE REGISTRAR.

FINAL NURSING EXAMINATION, MAY, 1913.

*List of Successful Candidates.*

- Pretoria, South Africa.*—Annie Stewart, Bessie G. Evans.  
*Fort Beaufort, South Africa.*—Martha Basch, Eliza P. Smith.  
*Caterham.*—Ada Lovegrove, Prudence A. Jefferies.  
*Devon County.*—Florence Parnell, George E. Essex.  
*Glamorgan County.*—\*Evan Hughes, Beatrice Maunder, Mary Davies, Frank J. Timms, \*John Morris.  
*Herts County, Hill End.*—Agnes A. Griffiths, Henry A. Box, Charles H. Searle.  
*Holloway Sanatorium.*—\*Arthur Jonas.  
*Kent County, Chartham.*—Frances L. Best, Albert Stevens, Olive E. Smith.  
*Kent County, Maidstone.*—Sarah A. Wratten, Helen Blowes, Adelaide Hills, \*Annie E. Stephens.  
*Lancashire County, Whittingham.*—Elizabeth Lackland, Kathleen F. Manning, Annie Edwards.  
*London County, Long Grove.*—Charles E. Gatter, Henry R. Wilshire, Edith Silk, Alfred T. Farrow.  
*London County, Cane Hill.*—Harry Samuel, Violet D. Swain.  
*London County, Colney Hatch.*—\*Rosie F. White, \*Cissie E. Mallinson, Harry Woodward, Albert Clark, George Howard.  
*London County, Banstead.*—Edith P. Ryan, Margaret A. Waylan, Ellen Coffee, Lizzie Harwood.  
*London County, Bexley.*—Kate Stemp, John A. George.  
*London County, Horton.*—Emily G. King, Charles Doggrell, Rosina Yauch.  
*London County, Hanwell.*—Hilda Wolsey.  
*Leavesden.*—Ethel A. Adams, Annie Schacht, Mary F. Smythe.  
*Middlesex County, Napsbury.*—Winifred Civil.  
*Norfolk County.*—William Patrick, William Baldry, \*Bessie Swift, Margaret Shreeve, Ethel Hardiment, George Yates.  
*Northampton County.*—Annie M. Davies, Minnie G. Hutchinson, Frances M. Collins, Annie I. Owen, Alfred S. Harrison, Harry S. Bailey.  
*Northumberland County.*—Rose A. Quinn.  
*Salop County.*—Philip H. Slater.  
*Staffs County, Cheddleton.*—Ethel Barnes.  
*Surrey County, Netherne.*—Albert E. Goldsmith, Alice E. Abbott, Annie Hall, Florence McMillan, Florence Sargeant, Lillie Overton.  
*East Sussex.*—Renie K. Richardson, \*Ella Welford, Lily Elliott, Frederick J. Petett.  
*Three Counties, Hitchin.*—Sarah Lawrence.  
*Worcester, Barnsley Hall.*—William Mitchell.  
*Yorkshire, Menston.*—\*Ethel G. Smith, Mary Ayrton, Sarah Wanless.  
*Yorkshire, Beverley.*—Alfred Noddle, Fred Frankish.  
*Yorkshire, Wadsley.*—Mary Parker, Thomas Taylor.  
*Yorkshire, Scalebor Park.*—Amy Wilson, Edith J. Harrison.  
*Birmingham, Winson Green.*—John E. Kent.  
*Birmingham, Rubery Hill.*—William H. Childs, Alfred French, Frederick Lloyd-Reynolds.  
*Bristol City.*—Mary A. Rogers, Amy G. Dredge.  
*Derby Borough.*—Florence R. Smith, Louisa E. Davies, Edith Barlow.  
*Cardiff City.*—\*Helene M. Perry, Margaret A. Lindsay, Kathleen Phillips.  
*Sunderland Borough.*—Eleanor Braid, Lucy M. Lovatt, John Galbraith.  
*Bailbrook House.*—Gertrude M. Hulbert, Amy Howells.  
*Bethlem Royal.*—May A. Wootton, Harriet Dorrington, Louisa May, Annie Schrimshaw.  
*Camberwell House.*—Ethel M. Franklin.

*The Retreat, York.*—Jessie A. Beckwith, James M. Duff, Susie M. Evans, Lilian A. Phillips.

*St. Luke's Hospital.*—Eleanor Kitney.

*Aberdeen District.*—James T. Christie.

*Aberdeen Royal.*—Mary Wedderburn.

*Argyll and Bute.*—Donald Martin, Margaret Greenhorn.

*Ayr District.*—\*Isabella Steele, William Brown, \*Henry Donald.

*Crichton Royal.*—Jeanie Marshall, Sarah Donnelly, Hannah M. Gass, Mary Stewart, Christina Graydon, James Young, Nellie MacIntosh, Margaret Nairn, Jessie Murray.

*Dundee District.*—Williamina Campbell.

*Edinburgh Royal (West House).*—Janet Cameron, Helen G. S. Richardson.

*Edinburgh District.*—Lily M. Green, John B. Adams, \*Margretta Bell, \*Jean Chisholm, Marion P. Jeffrey.

*Edinburgh Royal (Craig House).*—\*Minnie Millar, Elizabeth K. Lindsay, Frances M. Parry, Mary Flett.

*Elgin District.*—Jeannie Mustard.

*Glasgow Royal.*—Elizabeth C. McKechnie, Margaret B. Macleod, Morag Murray, Elizabeth G. Millar.

*Glasgow, Gartloch.*—Veronica M. Gillespie, \*Sarah Simpson, Elizabeth S. Ross, Helen Johnston.

*Glasgow, Woodilee.*—May H. Vallance, \*Helen K. Wotherspoon, Jean Lauder, Mary MacDonald, \*Agnes Cross.

*James Murray's Royal.*—William Christie.

*Lanark District.*—\*Jane B. Allan, Elizabeth Hunter, \*Annie T. Douglas.

*Montrose Royal.*—\*Fanny D. Smith.

*Renfrew District.*—Saralee Paterson, Angus McDonald, Christina M. Macdonald, John Campbell.

*Roxburgh District.*—Christian Home, Annie Drysdale, Alexander W. Ewen, David Fenton.

*Stirling District.*—Mary A. Sutherland, Emma Armstrong, Charlotte H. Robertson, Daniel S. Home.

*Richmond District.*—Delia Madigan.

*Portrane Asylum.*—Mary C. McArdle, Margaret Toole.

*Farnham House.*—Annie M. Hennessy.

*St. Patrick's Hospital.*—Mary Solon.

Those marked with an asterisk thus \* passed the examination with distinction.

#### PRELIMINARY NURSING EXAMINATION, MAY, 1913.

##### List of Successful Candidates.

*Fort Beaufort, South Africa.*—Louise I. Illgner, Ellen S. Sargent, Janet O. Wallace, Miriam Whitehead, Letitia Brandt.

*Pretoria, South Africa.*—Ernest Stotesbury, Alfred Brown, Margaret Hall, William Stotesbury, Lily Hobley.

*Grahamstown, South Africa.*—Letishua Barnard, Marguerita Redlinghuys.

*Port Alfred, South Africa.*—Arthur G. Parkins, John Gradwell, Emily Woods, Alice H. Hunt.

*Bloemfontein, South Africa.*—William Grigg, Johan F. Rooyen, Cornelius Borstlap.

*Brecon and Radnor.*—Charles Jones.

*Cheshire, Macclesfield.*—Nellie O. Watts.

*Chester, Upton.*—Ivy B. Wynde, Martha A. Ford, Joseph Hinds, Thomas Shore, Arthur Allsop, George Partin, Arthur T. Griffiths, Charles Martin, Mabel Lloyd.

*Cumberland County.*—Mary Burke, Jessie A. Hargraves.

*Derby County.*—Cora Dunstan, Edith W. Illsley, Alice Bakewell, Thomas Lawrence.

*Devon County.*—Moses Dorey, Mark R. Court.

*Hants County.*—Jane M. Bowler.

*Essex and Colchester.*—Ellen Thomas, Rose Hunt.

*Glamorgan County.*—Arthur Sneyd, Roderick Lewis-Davies, Agnes Cregan, James Humphreys-Davies, Jenny Francis, Walter W. Jarrett, Joseph E. Bryon, Margaret Jenkins, Annie Almond, Sylvia Jory, Ceridwen Evans.

*Kent County, Maidstone.*—John Smith, Gertrude Hurford, Margaret A. Smith, Martha F. Beaumont, Edythe Oram, Violet L. Hodges, Nellie Nuttall.

*Kent County, Chartham.*—Coralie Tait, Edith A. Bricknell, Lillian C. Reeves, Violet R. Godden, Annie M. Northrop, Dorothy Godden, Frank Norris, Reginald Hall, David Button.

*Lancashire County, Winwick.*—Catherine Duncan, Gilbert Lea, William Lee.

*Lancaster.*—Fred B. Hall, Thomas Watson, Frank Amos, Albert G. Clark, Alfred W. Stickler, Sarah Green, Margaret Wood, Helen Holmes, Isabella Caddow, Mary Carter, Mary E. Townson.

*Lancaster County, Whittingham.*—Catherine Mitchell, Caroline Hopper, Gwladys Evans, Frances A. Rhodes.

*Lancashire County, Ruinhill.*—Elizabeth Taylor, Selma Munder, Jennie Pimblett, Elizabeth Turner.

*Leicester County.*—Henry Nicholls, Jessie Groves, Ena Neville.

*Leavesden Asylum.*—Elsie L. Cooke, Lily M. Paxton, Florence Thomas.

*London City, Stone.*—Ethel G. Baily.

*Epileptic Colony, Ewell.*—Ethel Prosser, Millie E. Buckett, Margaret Corney, Frederick T. Westbrook.

*London County, Banstead.*—Edith M. Mallion, Jeanne Curtenelle, Nellie Peasley, Bridget Heslin, Nellie Sincock, Mary Anne Bourke, Florence A. Martin, Annie French, William Reed, Edith Downs, Clara Wright, Mary Hannam.

*London County, Colney Hatch.*—Hubert F. Davis.

*London County, Bexley.*—Mary J. Henry, Margaret Thackray, Nellie H. Pick, Ethel Hallam, Jessie W. Forsyth, Annie Boston, Donald C. Mackay, Edwin Mortimer.

*London County, Claybury.*—Frederick E. King, Kathleen Vincent, Alice Panther, Hilda F. Weintz, Rose E. Norman.

*London County, Hanwell.*—Samuel J. Price, Thomas Morrissey, Alfred Jones, Reuben Plumbridge, Patrick O'Sullivan, Leonard Kidd, Winifred Hyatt, Annie Emberson, Lily Kerrins, Joseph Parker.

*London County, Long Grove.*—Mary Scott, Hilda Wilson, Henry Cummins, Martha Menzies, Frederick Simmons, Joseph Wilson, Percy Muscutt, William Stanyon.

*London County, Cane Hill.*—Ellen Spillane, Florence French, William Inkersole.

*London County, Horton.*—Elsie Reeves, Alma J. Rhyder, Ethel Burn, Herbert Winter, Ethel M. Price, Stella E. Peer.

*Middlesex County, Wandsworth.*—Henry Hillier, Wesley G. Howe.

*Middlesex County, Napsbury.*—Helena Brewer, Kate Connelly, Janet M. Lithgow, Elizabeth Morrison, Arthur Williams, Thomas Saunders.

*Monmouthshire.*—William Evans, Alice Weeks, May Wayman, Lena O'Brien, Frances O'Brien, Florence Milton, Elizabeth Jones, Mary Dargavel, Romley Thomas.

*Northampton, Berry Wood.*—Elsie Smith, Margaret Edmunds.

*Norfolk County.*—Patience Hardiment, George Hopton, Frances McGill, Edith Good.

*Northumberland County.*—George B. Burrill, Lancelot H. Ashby.

*Salop County.*—Alice M. Moss, Emma Parker, Annie P. Bailey, Annie Throup, James Haigh, Charlotte Jones, Arthur Mason.

*Staffordshire County, Burntwood.*—William G. Bullock.

*Staffordshire County, Cheddleton.*—Bertha Portsmouth, Agnes F. Beard, Mette K. T. Raben.

*Surrey County, Brookwood.*—Olive M. Salmon, Annie Phillipson, Annie Jenkins, Lucy Sherrey, Lucy A. Rose, Elizabeth Wiggall, Margaret Baker, Beatrice Lewis, James A. Hunt.

*Surrey County, Netherne.*—Winifred K. Stone, Charles J. Colerick, James Mitchell.

*West Sussex County.*—Agnes Delany, Gwendolin Irwin, Esther Hughes, Florence Northcote, Beatrice Shipway, Annie Stubbs, Beatrice Larcombe, Harry Scott, Frank Mayo, Francis Hurst, Winifred Heppell, Ruby Shears.

*East Sussex County.*—Ernest Edwards, Henry Murch, John Healy, Sydney Williams, Lily Darby, Elizabeth Hardiman.

*Three Counties, Hitchin.*—Herbert S. Wilde.

*Worcester County, Barnsley Hall.*—Emily Perks, Mary Chesshire, Hilda Rogers, Lily Pilsbury, May James, Henry Adams, James Emms, Annie Newnham, Edward Hearne, Augustus Watts.

*Yorks, Clifton.*—Emily Wailes, Jessie Mills.

*Yorks, Beverley.*—George Wardell, Annie Hunt.

*Yorks, Storthes Hall.*—Alfred Nunn, Robert Whiteley, John Hopkin, Edith Poyser, Lizzie Moorhouse, Constance Good, Ernest Fairhurst.

*Yorks, Wadsley.*—John R. Boulter.

*Yorks, Scalebor Park.*—Edith Mosley, Eleanor Straker, Bernice Stead, Eva Mosley, Annie Deighton, Jeannie Forsyth.

*Yorks, Menston.*—Ellen Maughan.

*Bristol City.*—Annie Giles, Ruth Handshaw, Blanche Bateman, Barbara Hughes.

*Birmingham, Winson Green.*—Frank Smith, Beatrice Cartwright, Ellen M. Turner.

*Birmingham, Rubery Hill.*—Frederick Williams, William Unsworth, Gertrude Turley, Lucy James, Fanny Wood, May Pote.

*Canterbury Borough.*—William E. Sayer, Frank A. Cobb, Harold Hathrill, Frances I. Edwards.

*Cardiff City.*—Hannah Walker, Albert J. Pullen, Albert J. Cusse, Walter S. Freeman, Alfred James, Minna Francis, Barbara M. Beccroft.

*Derby Borough.*—Olive E. Coulson, Wallace Flixon, Margery E. Shaw, Thomas T. Lee, Lydia M. Douglas, Mabel Coles, Walter Davies (from Notts County Asylum).

*Holloway Sanatorium.*—Arthur Purbrick, Herbert L. Hagger, Mary C. Smith, Katherine H. Scott, Lucy E. Knowles, George Warren.

*Hull City.*—Stall E. Salton, Bernard C. Wilson, Emily Bosford, Ethel Kirkby.

*Newport Borough.*—Robert O. Roberts.

*Leicester Borough.*—Ethel Hickling, Henry Chamberlain, Maude Collier, Mary Oliver, Sarah Siddall, Hannah Armstrong.

*Newcastle City.*—Minnie Fletcher, Catherine Anderson, Jane Firth, Alice Mumford, Samuel Stanfield, Thomas Laidler, Albert G. Furness, Selby Gray, James Robinson, William Gates, David Falconer, Charles Hey, Leonard Merritt, Albert Griffiths, Watson Dennison, John Parkinson.

*Notts City.*—Daisy Swanwick, Frederick Brown, Ida Gilbert.

*Portsmouth Borough.*—Florence A. Coghlan.

*York City.*—Montagu F. Smith, George A. Kitching, Elizabeth Rains, Hazel Garlick.

*West Ham Borough.*—Charles L. Ward, Bernard Kitson, Harry Lubbock, Sidney Townshend, William Williams, Joseph Jennings, Daniel O'Sullivan, George Cherry, Frederick Partner, Alfred Honeyman, Maude Miller, Harriett Davey, Nellie Kemp, Winifred Butler, Ellen Wiseman.

*Bailbrook House, Bath.*—Eleanor M. Bowen.

*Sunderland Borough.*—Laurence Redpath, Sarah Stonebridge, Emma Glover, Isabella Galbraith, Emily Skipper.

*Bootham Park, York.*—Seth Smith, Harry Karshaw, James Steward, Hannah Mumford, Mary Taylor, Annie Taylor, Arthur Taylor, Henry Kay.

*The Retreat, York.*—Dorothy Wilkinson, Hannah Watson, Daisy Millard, Helen Halroyd, Harriet Clifford, Beatrice Adshead, Robert Cameron.

*Bethlem Royal.*—Jessie Hare, Laetitia Pead, Walter Mayne, Timothy Buckley.

*Brislington House, nr. Bristol.*—Jessie Willcox, Clarice Broad, Gertrude Lethbridge, Charlotte Whitmore, Cordelia Widdicombe, Susie Scott, William Richards, John E. Payne.

*Fenstanton, London.*—Etta Trevethan.

*Warneford, Oxford.*—Florence M. Phipps.

*St. Luke's Hospital.*—Gertrude Fernihough, Katherine Humphreys, George Osgood.

*Camberwell House.*—Madelcine Mason, Ada M. Baker, Lucy E. Rowdon, Bessie G. Thorowgood, Elien D. Rea, Ellen Gardner, Edith Barnes, Mary E. Watt, Laura Evitt, Flora McKelvie.

*Croydon Borough.*—Annie C. Parker.

*Warwick County.*—Annie E. Jackson, Elizabeth Sheppard.

*Aberdeen District.*—Charles Riach, Annie Stephen, Mary J. Craigans, Helen Kemp, Catherine Robertson, Elizabeth Grant.

*Aberdeen Royal.*—Bathia Murison, Williamina Thompson, Edith Grant, Mary A. Littlejohn, Maggie Beattie, Annabella Ironside, Christian Charlwood.

*Argyll and Bute.*—Jean Bain, Margaret Wood, Euphemia Douglas, Jessie Macindoe, Donald McAulay, Neil MacLellan, David Walker.

*Dundee District.*—Rhoda Gibb, Kate Glen, Lizzie Carr, Jessie Mackay, Margaret Finlayson, Janet Haxton, Janet Robertson, Elizabeth Middleton, Maria Powrie, Margaret Clark.

*Ayr District.*—Susanna Thom, Jessie Masterton, Mary Lauchlan, Wilhelmina McBride, Mary C. Auld, Jessie Perris, Christina Henderson, James Warden, John Donald, James Miller, Donald Cowan, Duncan Carmichael, Charles S. Ross, Helen Semple, Alice Davidson, Georgina Flett, Neil McLean, John McInnes.

*Edinburgh District, Bangour.*—Ruth D. C. Henderson, William Morwood, David C. Murray, Isabella W. Ptolmey, Alexandra Tennant, Mary Thomson, Katherine M. Calder.

*Crichton Royal.*—Marie Pape, Susan McDonald, Agnes Richardson, Violet Lambie, William Handley, Jessie Waddell, James Ferguson, Margaret Urquhart, Jinnie Crickard, Helen MacKenzie.

*Edinburgh Royal, West House.*—Georgina Sharpe, Alexander Baillie, Roberta Fraser, Jeannie Milne, Mary M. Ross, Eliza Simpson, Jessie M. Thomson, Jessie B. Kirkland.

*Edinburgh Royal, Craig House.*—Maggie Robertson, Isabella Leishman, Ruth Farrer, Christina Stewart, Catherine Sutherland, Grace G. MacRae, Margaret Grigor.

*Elgin District.*—Jessie Craib.

*Fife and Kinross.*—Janet Dow, Robert Dewar.

*Glasgow, Woodilee.*—Bessie G. Tinto, Margaret S. Reid, Agnes Howie, Isabella Cross, Peter Mitchell, Mary A. Graham, Emily G. Gilpin.

*Glasgow Royal.*—Mildred B. Jack, Dolina Morrison, Jane P. Britten, Jean T. Andrew, Patrick McManus, Harriet McLean, Isabella MacKenzie, Catherine Leitch, Mary Frater, Margaret Macaulay, Duncan Turner.

*Glasgow, Gartloch.*—Fanny Milligan, Margaret C. Bain, Kate C. Stronach, Elizabeth Paterson, Margaret Rennie, William Grant, Donald McPhee.

*Inverness District.*—Catherine Fraser.

*Lanark District.*—Jessie McLagan, Elizabeth Henderson, Neena McLachlan, Margaret Begley, Isabella McColl.

*Montrose Royal.*—Elsie C. Robb.

*Perth District.*—Mary E. Leith, Jeanie Spence, Alison H. Philp.

*Renfrew District.*—Sarah Streetly, Neil McDonald, Maggie B. Ross, Marion Macaulay, Norman McDonald, Jane Ogilvy.

*Roxburgh District.*—Jane Home, John Bowie, George Brown.

*Stirling District.*—Norman Rennie, Marion Macdonald, Donald Macleod, Robert Scalton, Annie Lawless, Agnes McCarten.

*Enniscorthy District.*—Mary K. Whelan, Lizzie Curry.

*Kilkenny District.*—Ellen Bolger, Mary Shekleton, Patrick Corcoran.

*Down District.*—Annie McCoubrey, Elizabeth Fleming, Grace Price, Anastasia Bergin, Hugh Cunningham, William Barrett, William J. Shields.

*Omagh District.*—Tillie Orr, Mary E. Gallagher, Annie M. Brogan.

*Waterford District.*—Thomas Gallagher.

*Portrane.*—Patrick Gargan, Hugh Young, Sarah Dowling, Mary Farrell, Alice O'Connor, Mollie Clifford, Alfred Pownall, Terence Lennon.

*Richmond.*—Nicholas Kelly, Patrick Scally, Alice Troy, Aloysius Doyle, Bridget Cummins.

*Farnham House.*—Winifred McIntyre, Sarah M. McCready.

*St. Patrick's Hospital.*—Kathleen M. Kingston, Elizabeth Sullivan, Bernard Dwyer, Sydney S. London.

## WRITTEN EXAMINATION.

## LIST OF QUESTIONS.

*Preliminary Examination, May, 1913.*

1. What do you know about the structure, functions, and attachments of muscles?
2. What are the organs of respiration? What changes does the blood undergo during its passage through the lungs; and where precisely do these changes take place?
3. With which bones are the following surface prominences associated: Chin, vertex, point of shoulder, anterior superior spine, heel, ball of toe.
4. Describe the kidneys and their function. What are the characteristics and constituents of healthy urine?
5. Indicate six places where the pulse is most easily felt. With what artery is each associated?
6. Name the different classes into which foods may be divided, and give examples. State the uses of the different kinds of food in the alimentation of the body.
7. For what purposes is a domestic supply of water required? Give your idea of a reasonable daily quantity for each purpose.
8. What immediate treatment would you adopt in the case of a patient found in the grounds with (a) fracture of both bones of the leg, and (b) severe wound of the palm of the hand?

*Final Examination, May, 1913.*

1. What do you understand by the term neurone? Give a short description of its structure.
2. Explain and define perception, emotion, judgment, disorientation, confusion, obsession.
3. What is an illusion, and what is an hallucination? Give examples of each. How may a patient's conduct be influenced by his hallucinations?
4. Describe a case of alternating insanity which has come under your observation.
5. How would you know if an acute maniac was becoming delirious? If this occurred, wherein should the treatment be altered?
6. What points should you specially note and report as regards the urinary system of an insane patient?
7. What results follow the ingestion of an excessive amount of the different classes of food? What signs would indicate that a patient is receiving insufficient nourishment?
8. An insane patient is found to have a raised temperature. Give in order of probability some possible causes, with reasons, and other symptoms to be looked for.

## DATES OF EXAMINATION.

The next preliminary examination will be held on November 3rd, 1913.  
The next final examination will be held on November 10th, 1913.

## NOTICES OF MEETINGS.

*Quarterly Meetings.*—Tuesday, November 25th, 1913; Thursday, February 19th, 1914, at Storthes Hall; Tuesday, May 19th, 1914.  
*Annual Meeting.*—Tuesday, July 14th, 1914.  
*South-Eastern Division.*—The Autumn Meeting will be held, on the invitation



of Dr. M. Abdy Collins, and by the courtesy of the Visiting Committee, at Ewell Colony, Epsom, on Tuesday, October 7th, 1913.

*South-Western Division.*—The Autumn Meeting will be held, on the invitation of Dr. A. N. Davis, and by the courtesy of the Visiting Committee, at the Devon County Asylum, Exminster, on Friday, October 24th, 1913.

*Northern and Midland Division.*—The Autumn Meeting will be held, on the invitation of Dr. J. F. Dixon, and by the courtesy of the Visiting Committee, at Leicester Borough Mental Hospital on Thursday, October 23rd, 1913.

*Scottish Division.*—The Autumn Meeting will be held on Friday, November 21st, 1913.

*Irish Division.*—The Autumn Meeting will be held at the Royal College of Physicians, Dublin, on Thursday, November 6th, 1913.

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#### RECENT APPOINTMENTS.

Douglas, R. O., M.D., Medical Superintendent of the Ararat Hospital and Benevolent Asylum, Ararat, Victoria.

Graus, T. Benson, M.B., Ch.B.Liverp., Junior Assistant Medical Officer to the North Wales Counties Lunatic Asylum.

Manifold, Robert F., M.B., B.Ch.Dub., Senior Assistant Medical Officer of the North Wales Counties Lunatic Asylum.

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Lectures at:—(1) University of Leeds; (2) Middlesex Hospital; (3) Guy's Hospital; (4) St. Bartholomew's Hospital; (5) University of Durham; (6) Charing Cross Hospital; (7) University of Glasgow; (8) University of Edinburgh and Medical College for Women, Edinburgh; (9) St. Thomas's Hospital; (10) King's College; (11) Westminster Hospital; (12) St. George's Hospital; (13) University of Dublin and National University of Ireland; (14) University College, Cork; (15) Queen's University of Belfast; (16) Lecturer at School of Medicine, Royal Colleges and Medical College for Women, Edinburgh; (17) Anderson's College, Glasgow; (18) St. Mungo's College, Glasgow; (19) Aberdeen University; (20) St. Andrew's University and Dundee University; (21) Birmingham University; (22) University College, London; (23) St. Mary's Hospital, London; (24) The London Hospital; (25) University of Sheffield; (26) Victoria University, Manchester; (27) University of Liverpool; (28) Charing Cross Hospital.

### LIST OF CHAIRMEN.

- 1841. Dr. Blake, Nottingham.
- 1842. Dr. de Vitre, Lancaster.
- 1843. Dr. Conolly, Hanwell.
- 1844. Dr. Thurnam, York Retreat.
- 1847. Dr. Wintle, Warneford House, Oxford.
- 1851. Dr. Conolly, Hanwell.
- 1852. Dr. Wintle, Warneford House.

### LIST OF PRESIDENTS

- 1854. A. J. Sutherland, M.D., St. Luke's Hospital, London.
- 1855. J. Thurnam, M.D., Wilts County Asylum.
- 1856. J. Hitchman, M.D., Derby County Asylum.
- 1857. Forbes Winslow, M.D., Sussex House, Hammersmith.
- 1858. John Conolly, M.D., County Asylum, Hanwell.
- 1859. Sir Charles Hastings, D.C.L.
- 1860. J. C. Bucknill, M.D., Devon County Asylum.
- 1861. Joseph Lalor, M.D., Richmond Asylum, Dublin.
- 1862. John Kirkman, M.D., Suffolk County Asylum.
- 1863. David Skae, M.D., Royal Edinburgh Asylum.
- 1864. Henry Munro, M.D., Brook House, Clapton.
- 1865. Wm. Wood, M.D., Kensington House.
- 1866. W. A. F. Browne, M.D., Commissioner in Lunacy for Scotland.
- 1867. C. A. Lockhart Robertson, M.D., Haywards Heath Asylum.
- 1868. W. H. O. Sankey, M.D., Sandywell Park, Cheltenham.
- 1869. T. Laycock, M.D., Edinburgh.
- 1870. Robert Boyd, M.D., County Asylum, Wells.
- 1871. Henry Maudsley, M.D., The Lawn, Hanwell.
- 1872. Sir James Cox, M.D., Commissioner in Lunacy for Scotland.
- 1873. Harrington Tuke, M.D., Manor House, Chiswick.
- 1874. T. L. Rogers, M.D., County Asylum, Rainhill.
- 1875. J. F. Duncan, M.D., Dublin.
- 1876. W. H. Parsey, M.D., Warwick County Asylum.
- 1877. G. Fielding Blandford, M.D., London.
- 1878. Sir J. Crichton-Browne, M.D., Lord Chancellor's Visitor.
- 1879. J. A. Lush, M.D., Fisherton House, Salisbury.
- 1880. G. W. Mould, M.R.C.S., Royal Asylum, Chendle.
- 1881. D. Hack Tuke, M.D., London.
- 1882. Sir W. T. Gairdner, M.D., Glasgow.
- 1883. W. Orange, M.D., State Criminal Lunatic Asylum, Broadmoor.
- 1884. Henry Rayner, M.D., County Asylum, Hanwell.
- 1885. J. A. Eames, M.D., District Asylum, Cork.
- 1886. Sir Geo. H. Savage, M.D., Bethlem Royal Hospital.
- 1887. Fred. Needham, M.D., Barnwood House, Gloucester.

1888. Sir T. S. Clouston, M.D., Royal Edinburgh Asylum.  
 1889. H. Hayes Newington, M.R.C.P., Ticehurst, Sussex.  
 1890. David Yellowlees, M.D., Gartnavel Asylum, Glasgow.  
 1891. E. B. Whitecombe, M.R.C.S., City Asylum, Birmingham.  
 1892. Robert Baker, M.D., The Retreat, York.  
 1893. J. Murray Lindsay, M.D., County Asylum, Derby.  
 1894. Conolly Norman, F.R.C.P.I., Richmond Asylum, Dublin.  
 1895. David Nicolson, C.B., M.D., State Criminal Lunatic Asylum, Broadmoor.  
 1896. William Julius Mickle, M.D., Grove Hall Asylum, Bow.  
 1897. Thomas W. McDowall, M.D., Morpeth, Northumberland.  
 1898. A. R. Urquhart, M.D., James Murray's Royal Asylum, Perth.  
 1899. J. B. Spence, M.D., Burntwood Asylum, nr. Lichfield, Staffordshire.  
 1900. Fletcher Beach, M.B., 79, Wimpole Street, W.  
 1901. Oscar T. Woods, M.D., District Asylum, Cork, Ireland.  
 1902. J. Wigglesworth, M.D., F.R.C.P., Rainhill Asylum, near Liverpool.  
 1903. Ernest W. White, M.B., M.R.C.P., City of London Asylum, Dartford, Kent.  
 1904. R. Percy Smith, M.D., F.R.C.P., 36, Queen Anne Street, Cavendish Square, London, W.  
 1905. T. Outterson Wood, M.D., F.R.C.P., 40, Margaret Street, Cavendish Square, London, W.  
 1906. Robert Jones, M.D., F.R.C.P., F.R.C.S., Claybury Asylum, Woodford Bridge, Essex.  
 1907. P. W. MacDonald, M.D., County Asylum, Dorchester.  
 1908. Chas. A. Mercier, M.D., F.R.C.P., F.R.C.S., 34, Wimpole Street, London, W.  
 1909. W. Bevan-Lewis, M.Sc., L.R.C.P., Medical Director, West Riding Asylum, Wakefield.  
 1910. John Macpherson, M.D., F.R.C.P. Edin., Commissioner in Lunacy, 8, Darnaway Street, Edinburgh.  
 1911. Wm. R. Dawson, B.A., M.D., F.R.C.P.I., D.P.H., Inspector of Lunatic Asylums, Dublin Castle, Dublin.  
 1912. J. Grieg Soutar, M.B., Medical Superintendent, Barnwood House, Gloucester.

### HONORARY MEMBERS.

1896. Allbutt, Sir T. Clifford, K.C.B., M.D., D.Sc., LL.D., F.R.S., F.R.C.P. Regius Professor of Physic, Univ. Camb., St. Radegund's, Cambridge.  
 1881. Benedikt, Prof. M., Franciskaner Platz 5, Vienna.  
 1907. Bianchi, Prof. Leonardo, Manicomio Provinciale di Napoli. (*Corr. Mem.*, 1896.)  
 1900. Blumer, G. Alder, M.D., L.R.C.P. Edin., Butler Hospital, Providence, U.S.A. (*Ord. Mem.*, 1890.)  
 1900. Bresler, Johannes, M.D., Oberarzt, Lüben in Schlesien, Germany. (*Corr. Mem.* 1896.)  
 1881. Brosius, Dr.,  
 1876. Browne, Sir J. Crichton, M.D. Edin., LL.D., D.Sc., F.R.S., Lord Chancellor's Visitor, Royal Courts of Justice, Strand, W.C., and 45, Hans Place, S.W. (PRESIDENT, 1878.)  
 1902. Brush, Edward N., M.D., Sheppard and Enoch Pratt Hospital, Towson, Maryland, U.S.A.  
 1887. Chapin, John B., M.D., Canandaigua, N.Y., U.S.A.  
 1909. Collins, Sir William J., D.L., M.D., M.S., B.Sc. Lond., F.R.C.S. Eng., 1, Albert Terrace, Regent's Park, N.W.  
 1912. Considine, Thomas Ivory, F.R.C.S.I., L.R.C.P.I., Inspector of Lunatic Asylums, Ireland, Office of Lunatic Asylums, Dublin Castle, Dublin.  
 1902. Coupland, Sidney, M.D., F.R.C.P. Lond., Commissioner in Lunacy, 16, Queen Anne Street, Cavendish Square, London, W.  
 1911. Donkin, Sir Horatio Bryan, M.A., M.D. Oxon., F.R.C.P. Lond. (Medical Adviser to Prison Commissioners and Director of Convict Prisons), 62, Portland Place, W.

## Honorary and Corresponding Members.

v

1879. Echeverria, M. G., M.D.  
 1895. Ferrier, Sir David, M.A., M.D., LL.D., F.R.S., F.R.C.P., 34, Cavendish Square, London.  
 1872. Fraser, John, M.B., C.M., F.R.C.P.E., Formerly Commissioner in Lunacy, 13, Heriot Row, Edinburgh.  
 1898. Hine, George T., F.R.I.B.A., 35, Parliament Street, London, S.W.  
 1881. Hughes, C. H., M.D., St. Louis, Missouri, United States.  
 1909. Kraepelin, Dr. Emil, Professor of Psychiatry, The University, Munich.  
 1887. Lentz, Dr., Asile d'Aliénés, Tournai, Belgique.  
 1910. Macpherson, John, M.D., F.R.C.P.Edin., Commissioner in Lunacy, 8, Darnaway Street, Edinburgh. (PRESIDENT, 1910-11.) (Ordinary Member from 1886.)  
 1898. Magnan, V., M.D., Asile de Ste. Anne, Paris.  
 1912. Maudsley, Henry, LL.D.Edin., (Hon.), M.D.Lond., F.R.C.P.Lond., 12, Queen Street, Mayfair, London, W. (PRESIDENT, 1871.) (Formerly Editor, *Journal of Mental Science*.)  
 1911. Moeli, Prof. Dr. Karl, Director, Herzberge Asylum, Berlin.  
 1897. Morel, M. Jules, M.D., 56, Boulevard Leopold, Ghent, Belgium.  
 1889. Needham, Frederick, M.D.St. And., M.R.C.P.Edin., M.R.C.S.Eng., Commissioner in Lunacy, 19, Campden Hill Square, Kensington, W. (PRESIDENT, 1887.)  
 1909. Obersteiner, Dr. Heinrich, Professor of Neurology, The University, Vienna.  
 1881. Peeters, M., M.D., Gheel, Belgium.  
 1900. Ritti, Ant., 68, Boulevard Exelmans, Paris. (*Corr. Mem.*, 1890.)  
 1887. Schüle, Heinrich, M.D., Illenau, Baden, Germany.  
 1911. Semelaigne, René, M.D.Paris, Secrétaire des Séances de la Société Médico-Psychologique de Paris, 16, Avenue de Madrid, Neuilly, Seine, France. (*Corresponding Member from 1893*)  
 1881. Tamburini, A., M.D., Reggio-Emilia, Italy.  
 1901. Toulouse, Dr. Edouard, Directeur du Laboratoire de Psychologie expérimentale à l'École des Hautes Etudes Paris et Médecin en chef de l'Asile de Villejuif, Seine, France.  
 1910. Trevor, Arthur Hill, B.A.Oxon., of the Inner Temple, Barrister at Law, Commissioner in Lunacy, 4, Allmarle Street, London, W.  
 1904. Take, Sir John Batty, M.D., D.Sc., LL.D., F.R.C.P., 20, Charlotte Square, Edinburgh.

## CORRESPONDING MEMBERS.

1904. Bierão, Caetano, 48, Rua Formosa, Lisbonne, Portugal.  
 1911. Boedeker, Prof. Dr. Julius Karl Edmund, Privat Dozent and Director, Fiebihnhof Asylum, Schlactensee, Berlin.  
 1897. Buschan, Dr. G., Stettin, Germany.  
 1904. Caroleu, Wilfrid, Manicomia de Sta. Cruz, St. Andreo de Palamar, Barcelona, Spain.  
 1896. Cowan, F. M., M.D., 107, Perponcher Straat, The Hague, Holland.  
 1902. Estense, Benedetto Giovanni Selvatico, M.D., 116, Piazza Porta Pia, Rome.  
 1911. Falkenberg, Dr. Wilhelm, Oberarzt, Irrenanstalt, Herzberge, Berlin.  
 1907. Ferrari, Giulio Cesare, M.D., Director of the Manicomio Provinciale, Imola, Bologna, Italy.  
 1911. Friedlander, Prof. Dr. Adolf Albrecht, Director of the Hohe Mark Klinik, nr. Frankfurt.  
 1904. König, William Julius, Deputy Superintendent, Dalldorf Asylum, Berlin.  
 1880. Kornfeld, Dr. Hermann, Fr. Schlesien, Hauptposttuerstr., Breslau.  
 1889. Kownulowsky, Professor Paul, Kharkoff, Russia.  
 1895. Lindell, Emil Wilhelm, M.D., Sweden.  
 1901. Munheimer-Gomudès, Dr., 32, Rue de l'Arcade, Paris.  
 1909. Moreira, Dr. Julien, M.D.Bahia, Professor and Director of the National Manicomium of Rio de Janeiro (*Editor of the Brazilian Archives of Psychiatry, etc.*)  
 1897. Näcke, Dr. P., Hubertusberg Asylum, Leipzig.  
 1886. Parant, M. Victor, M.D., Toulouse.  
 1909. Pilez, Dr. Alexander (Professor of Psychiatry in the University of Vienna), Superintendent Landessanatorium fur Nerven und Geistes- kranke Steinhof, Vienna.  
 1890. Régis, Dr. E., 54, Rue Huguerie, Bordeaux.

## MEMBERS OF THE ASSOCIATION.

*Alphabetical List of Members of the Association, with the year in which they joined. The Asterisk means Members who joined between 1841 and 1855.*

1900. Abbott, Henry Kingsmill, B.A., M.D.Dublin, D.P.H.Ireland, Medical Superintendent, Hants County Asylum, Fareham.
1891. Adair, Thomas Stewart, M.D., Ch.M.Edin., Medical Superintendent, Storthe's Hall Asylum, Kirkburton, near Huddersfield. (*Hon. Sec. N. and M. Division since 1908.*)
1910. Adam, George Henry, M.R.C.S., L.R.C.P.Lond., Manager and Medical Superintendent, West Malling Place, Kent.
1868. Adams, Josiah O., M.D.Durh., F.R.C.S.Eng., J.P., 117, Cazenove Road, Stamford Hill, N.
1886. Agar, S. Hollingsworth, jun., B.A.Cantab., M.R.C.S.Eng., Hurst House, Henley-in-Arden.
1905. Alcock, Benjamin James, M.A., M.B., Ch.B.Aberd., James Murray's Royal Asylum, Perth.
1869. Aldridge, Chas., M.D.Aber., L.R.C.P.Lond., Bellevue House, Plympton, Devon.
1905. Alexander, Edward Henry, M.B., Ch.M.Edin., M.R.C.S., L.R.C.P.Lond., Physician Superintendent, Ashbourne Hall Asylum, Dunedin, New Zealand.
1899. Alexander, Hugh de Maine, M.D.Edin., Medical Superintendent, Aberdeen City District Asylum, Kingseat, Newmachar, Aberdeen.
1890. Alexander, Robert Reid, M.D.Aber., 25, Lingfield Avenue, Kingston-on-Thames.
1899. Allmann, Dorah Elizabeth, M.B., B.Ch., B.A.O.(R.U.I.), Assistant Medical Officer, District Asylum, Armagh.
1885. Amslen, Geo., M.B., Ch.M.Edin., M.R.C.S., L.R.C.P.Lond., The Old Rectory, Noke, near Islip, Oxon.
1908. Anderson, James Richard Sumner, M.B., Ch.B.Glas., Senior Assistant Medical Officer, Cumberland and Westmorland Asylum, Garlands, Carlisle.
1898. Anderson, John Sewell, M.R.C.S., L.R.C.P.Lond., Senior Assistant Medical Officer, Hull City Asylum, Willerby, near Hull.
1909. Anderson, John Theodore, L.R.C.P.&S.Edin., L.R.F.P.S Glasg., Senior Assistant Medical Officer, Hospital for the Insane, Claremont Park, West Australia.
1912. Amundale, James Scott, M.B., Ch.B.Edin., Second Assistant Physician, Aberdeen Royal Asylum.
1912. Apthorp, Frederick William, M.R.C.S.Eng., L.R.C.P.Edin., Senior Medical Officer, St. George's Retreat, Ravensworth, Burgess Hill.
1904. Archdale, Mervyn Alex., M.B., B.S.Dur., Medical Superintendent, East Riding Asylum, Beverley, Yorks.
1905. Archdall, Mervyn Thomas, L.S.A.Lond., L.R.C.P.&S.Edin., Brynn-y-Nenadd Hall, Llanfairfechan, N. Wales.
1910. Auden, G. A., M.A., M.D., B.C., D.P.H.Cantab., M.R.C.P.Lond., F.S.A., Medical Superintendent, Educational Committee, Edmund Street, Birmingham.
1891. Aveline, Henry T. S., M.D.Durh., M.R.C.S., L.R.C.P., M.P.C., Medical Superintendent, County Asylum, Cotford, near Taunton, Somerset. (*Hon. Sec. for S.W. Division, 1905-11.*)
1911. Babington, Alice E. May, M.B., Ch.B.Edin., West Riding Asylum, Wakefield.
1903. Bailey, William Henry, M.D.Lond., M.R.C.S.Eng., L.S.A., D.P.H., Featherstone Hall, Southall, Midd.
1894. Baily, Percy J., M.B.Edin., Medical Superintendent, London County Asylum, Hanwell, W.
1909. Bain, John, M.A., M.B., B.Ch.Glasg., Assistant Medical Officer, Northampton County Asylum, Berrywood.
1906. Baird, Harvey, M.D., Ch.B.Edin., Periteau, Winchelsea, Sussex.
1878. Baker, H. Morton, M.B.Edin., 7, Belsize Square, London, N.W.
1888. Baker, John, M.D.Aberd., Medical Superintendent, State Asylum, Broadmoor, Berks.
1909. Ballard, Ernest Fryer, M.B., B.S.Lond., Assistant Medical Officer, Somerset and Bath Asylum, Wells.
1904. Barham, Guy Foster, B.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P.Lond., Senior Assistant Medical Officer, London County Asylum, Long-Grove, Epsom.

1913. Bartley, James Morgan, M.B., Ch.B.Edin., Senior Medical Officer, Brace Bridge Asylum, Lincolnshire.
1910. Bartlett, George Norton, M.B., B.S.Lond., M.R.C.S., L.R.C.P., Assistant Medical Officer, London County Asylum, Horton, Epsom.
1904. Barton, Samuel J., M.D.Dubl., Physician to the Norfolk and Norwich Hospital, Surrey Street, Norwich.
1901. Baskin, J. Loughed, M.D.Bru., L.R.C.P.&S.Edin., L.R.F.P.S.Glas., Llangarran, New Church Road, Hove, Sussex.
1902. Baugh, Leonard D. H., M.B., Ch.B.Edin., Gartloch Asylum, Gartcosh, Glasgow, N.B.
1893. Bayley, Joseph Herbert, M.B., Ch.M.Edin., L.R.C.P.Lond., Assistant Medical Officer, St. Andrew's Hospital, Northampton.
1907. Bazalgette, Sidney, M.R.C.S., L.R.C.P.Lond., Assistant Medical Officer, Fishponds Asylum, Bristol.
1874. Beach, Fletcher, M.B., F.R.C.P.Lond., *formerly Medical Superintendent, Darenth Asylum, Dartford*; Stresa, Fanfare Road, Coulsdon, Surrey. (*Secretary Parliamentary Committee, 1896-1906. General Secretary, 1889-1896. PRESIDENT, 1900.*)
1892. Beadles, Cecil F., M.R.C.S., L.R.C.P.Lond., The Clergy House, Englefield Green, Surrey.
1902. Beale-Browne, Thomas Richard, M.R.C.S.Eng., L.R.C.P.Lond., Medical Staff, South Nigeria, West Africa.
1909. Beeley, Arthur, M.Sc.Leeds, M.B., B.S.Lond., D.P.H.Camb. (*Assistant Medical Officer, E. Sussex Educational Committee*), 14, Park Avenue, Keighly, Yorks.
1912. Benson, Henry Porter D'Arcy, M.D., Ch.M.Edin., M.R.C.P., F.R.C.S. Edin., Medical Superintendent, Farnham House, Finglas, Dublin.
1899. Beresford, Edwyn H., M.R.C.S., L.R.C.P.Lond., Medical Superintendent, Tooting Bee Asylum, Tooting, S.W.
1912. Berncastle, Herbert M., M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer, Croydon Mental Hospital, Warlingham, Surrey.
1879. Bevan-Lewis, William, M.Sc.Leeds, M.R.C.S., L.R.C.P.Lond., Elsinore, Dyke Road Avenue, Brighton. (*PRESIDENT, 1909-10.*)
1894. Blachford, James Vincent, M.D., B.S.Durham, M.R.C.S., L.R.C.P.Lond., City Asylum, Fishponds, Bristol.
1908. Blackmore, Humphrey, P., M.D.St. And., M.R.C.S.Eng., L.S.A., Physician, Salisbury.
1898. Blair, David, M.A., M.D., C.M.Glasg., County Asylum, Lancaster.
1897. Blandford, Joseph John Guthrie, B.A., D.P.H.Camb., M.R.C.S.Eng., L.R.C.P.Lond., Senior Assistant Medical Officer, County Asylum, Whittingham, Preston, Lanes.
1908. Blandy, Gurth Swinnerton, M.B., Ch.B.Edin., Assistant Medical Officer, Middlesex County Asylum, Napsbury, Herts.
1904. Bodvel-Roberts, Hugh Frank, M.A.Cantab., M.R.C.S., L.R.C.P.Lond., Middlesex County Asylum, Napsbury, near St. Albans, Herts.
1900. Bolton, Joseph Shaw, M.D., B.S., B.Sc.Lond., F.R.C.P., Medical Superintendent, West Riding Asylum, Wakefield.
1892. Bond, Charles Hubert, D.Sc., M.D., Ch.M.Edin., M.R.C.P.Lond., Commissioner in Lunacy, 66, Victoria Street, S.W. (*Hon. General Secretary, 1906-12.*)
1912. Borrie, David Forbes, M.R.C.S.Eng., L.R.C.P.Lond., Busra, Persian Gulf, *vid* Bombay.
1877. Bower, David, M.D.Aber., Springfield House, Bedford. (*Chairman, Parliamentary Committee, 1907-1910.*)
1877. Bowes, John Ireland, M.R.C.S.Eng., L.S.A., Medical Superintendent, County Asylum, Devizes, Wilts.
1893. Bowes, William Henry, M.D., B.S.Lond., F.R.C.S.Eng., Medical Superintendent, Plymouth Borough Asylum, Ivybridge, Devon.
1900. Bowles, Alfred, M.R.C.S., L.R.C.P.Lond., 10, South Cliff, Eastbourne.
1896. Boycott, Arthur N., M.D.Lond., M.R.C.S.Eng., L.R.C.P.Lond., Medical Superintendent, Herts County Asylum, Hill End, St. Albans, Herts. (*Hon. Sec. for S.-E. Division, 1900-05.*)
1912. Boyd, William, M.D.Edin., Winwick Asylum, Lanes.
1912. Boyd, William, M.B., Ch.B., B.A.O.Belfast, Assistant Medical Officer, Cornwall County Asylum, Bodmin.



1898. Boyle, A. Helen A., M.D.Brux., L.R.C.P.&S.Edin., 9, The Drive, Hove, Brighton.
1883. Boys, A. H., L.R.C.P.Edin., M.R.C.S.Eng., The White House, St. Albans.
1891. Braine-Hartnell, George, M. P., L.R.C.P.Lond., M.R.C.S.Eng., Medical Superintendent, County and City Asylum, Powick, Worcester.
1911. Brander, John, M.B., Ch.M.Edin., Assistant Medical Officer, London County Asylum, Bexley, S.E.
1895. Briscoe, John Frederick, M.R.C.S.,Eng., Resident Medical Superintendent, Westbrooke House Asylum, Alton, Hants.
1905. Brown, Harry Egerton, M.D., Ch.B.Glasg., M.P.C., West Koffies Asylum, Pretoria, S. Africa.
1904. Brown, Josephine, M.B.Lond., Pan's Field, Headley, Hants.
1908. Brown, Robert Cunyngham, M.D.Durh., General Board of Lunacy, Edinburgh.
1908. Brown, R. Dods, M.D., M.R.C.P.Edin., D.P.H., Senior Assistant Physician, Royal Asylum, Morningside, Edinburgh.
1908. Brown, Ralph, M.R.C.S., L.R.C.P.Lond., Bethlem Royal Hospital, S.E.
1912. Brown, William, M.D., C.M., District Medical Officer, Adviser in Lunacy to Bristol Magistrates, Park View, Fishponds, Bristol.
1893. Bruce, Lewis C., M.D., F.R.C.P.Edin., Medical Superintendent, District Asylum, Druid Park, Murthly, N.B. (*Co-Editor of Journal since 1911; Hon. Sec. for Scottish Division, 1901-1907.*)
1912. Buchanan, Henry Meredith, M.B., Ch.B.Edin., Assistant Medical Officer, District Asylum, Inverness.
1912. Buchanan, William Murdoch, M.B., Ch.B.Glas., Assistant Medical Officer, District Asylum, Inverness.
1892. Bullen, Frederick St. John, M.R.C.S.Eng., 3, Richmond Park Road, Clifton, Bristol.
1908. Bullmore, Charles Cecil, J.P., L.R.C.P.&S.Edin., L.F.P.S.Glas., Medical Superintendent, Flower House, Catford.
1912. Burke, Joseph D., M.B., Ch.B.R.U.I., Assistant Medical Officer, Somerset and Bath Asylum, Cotford, near Taunton.
1911. Buss, Howard Decimus, B.A., B.Sc.France, M.D.Brux., M.R.C.S., L.R.C.P., L.M.S.S.A.Lond., Assistant Medical Officer, Fort Beaufort Asylum, Cape Colony.
1910. Cahir, John P., M.B., B.Ch., B.A.O. (R.U.I.), Assistant Medical Officer, Borough Asylum, Humberstone, Leicester.
1891. Caldecott, Charles, M.B., B.S.Lond., M.R.C.S., Medical Superintendent, Earlswood Asylum, Redhill, Surrey.
1889. Callcott, James T., M.D., B.S.Durh., M.R.C.S.Eng., Medical Superintendent, Borough Asylum, Newcastle-on-Tyne.
1912. Cameron, John Alexander Munro, M.B., Ch.B.Glas., Pathologist and Assistant Physician, Lancaster County Asylum, Whittingham, Preston.
1894. Campbell, Alfred Walter, M.D.Edin., Macquarie Chambers, 183, Macquarie Street, Sydney, New South Wales.
1909. Campbell, Donald Graham, M.B., Ch.M.Edin., "Auchmillam," 12, Reidhaven Street, Elgin.
1880. Campbell, Patrick E., M.B., Ch.M.Edin., Medical Superintendent, Metropolitan Asylum, Caterham, Surrey.
1897. Campbell, Robert Brown, M.D., F.R.C.P.E., Medical Superintendent, Stirling District Asylum, Larbert. (*Secretary for Scottish Division from 1910.*)
1905. Carre, Henry, L.R.C.P.&S.Irel., L.M., Woodilee Asylum, Lenzie, Glasgow.
1891. Carswell, John, L.R.C.P.Edin., L.R.F.P.S.Glasg., Certifying Medical Officer, Barony Parish, 5, Royal Crescent, Glasgow.
1874. Cassidy, D. M., M.D., C.M.McGill Coll., Montreal, D.Sc. (Public Health) Edin., F.R.C.S.Edin., Medical Superintendent, County Asylum, Lancaster.
1888. Chambers, James, M.A., M.D., (R.U.I.), The Priory, Roehampton. (*Co-Editor of Journal since 1905, Assistant Editor 1900-05.*) (PRESIDENT-ELECT, 1913-14.)
1911. Chambers, Walter Duncannon, M.A., M.B., Ch.B.Edin., Crichton Royal Institution, Dumfries, N.B.

1865. Chapman, Thomas Algernon, M.D.Glas., L.R.C.S.Edin., Betula, Reigate.
1907. Chislett, Charles G. A., M.B., Ch.B.Glasg., Assistant Medical Officer, Woodilee Asylum, Lenzie, Glasgow.
1880. Christie, J. W. Stirling, L.R.C.P.Edin., Medical Superintendent, County Asylum, Stafford.
1878. Clapham, Wm. Crochley S., M.D., F.R.C.P.Ed., The Five Gables, Mayfield, Sussex. (*Hon. Sec. N. and M. Division, 1897-1901.*)
1907. Clarke, Geoffrey, M.D.Lond., Senior Assistant Medical Officer, London County Asylum, Banstead, Sutton, Surrey.
1910. Clarke, James Kilian P., M.B., B.Ch., B.A.O. (R.U.I.), Essex and Colchester Asylum, Brentwood.
1907. Clarkson, Robert Durward, B.Sc., M.D., Ch.M.Edin., F.R.C.P.Edin. (Medical Officer, Scottish National Institute for the Education of Imbecile Children), The Park, Larbert, Stirling.
1901. Cleland, William Lennox, M.B., B.Ch.Edin., Park Side, Adelaide, South Australia.
1862. Clouston, Sir Thomas S., M.D., LL.D.Edin., F.R.C.P., F.R.S.E., 26, Heriot Row, Edinburgh. (*Editor of Journal, 1873-1881.*) (PRESIDENT, 1888.)
1900. Coffey, Patrick, L.R.C.P.&S.I., District Asylum, Maryborough, Queen's Co., Ireland.
1892. Cole, Robert Henry, M.D.Lond., M.R.C.P.Lond., 25, Upper Berkeley Street, W. (*Secretary of Parliamentary Committee since 1912.*)
1900. Cole, Sydney John, M.A., M.D., B.Ch.Oxon., Senior Assistant Medical Officer, Wilts County Asylum, Devizes.
1906. Collen, Edward Victor, M.D., B.Ch., B.A.O.Dubl., Killycomain House, Portadown, Ireland.
1906. Collier, Walter Edgar, M.R.C.S., L.R.C.P.Lond., Assistant Medical Officer, Kent County Asylum, Maidstone.
1903. Collins, Michael Abdy, M.D., B.S.Lond., M.R.C.S., L.R.C.P., Medical Superintendent, Ewell Colony, Epsom, Surrey. (*Hon. General Secretary since 1912.*)
1910. Conlon, Thomas Peter, L.R.C.P.&S.Irel., Resident Medical Superintendent, District Asylum, Monaghan.
1878. Cooke, Edward Marriott, M.D.Lond., M.R.C.S.Eng., Commissioner in Lunacy, 69, Ouslow Square, S.W.
1909. Cooke, John Benson, L.R.C.S.&P.Edin. (*H.M. Prison Service*), Love Lane, Wakefield.
1910. Coombes, Percival Charles, M.R.C.S., L.R.C.P.Lond., Assistant Medical Officer, Surrey County Asylum, Brookwood, Woking.
1905. Cooper, K. D., L.R.C.P.&S.Edin., L.F.P.S.Glas., c/o Leopold & Co., Apollo, Bunder, Bombay.
1903. Cormac, Harry Dove, M.B., B.S.Madras, Parkside Asylum, Macclesfield.
1891. Corner, Harry, M.D.Lond., M.R.C.S., L.R.C.P., M.P.C., 37, Harley Street, W.
1905. Cotter, James, L.R.C.P.&S.E., L.R.F.P.S.Glas., Down District Asylum, Downpatrick.
1897. Cotton, William, M.A., M.D.Edin., D.P.H.Cantab., 231, Gloucester Road, Bishopston, Bristol.
1910. Coupland, William Henry, L.R.C.S.&P.Edin., Senior Assistant Medical Officer, 1, Sea View, South Road, Lancaster.
1893. Cowen, Thomas Philip, M.D., B.S.Lond., Assistant Medical Officer County Asylum, Lancaster.
1911. Cox, Donald Maxwell, M.R.C.S., L.R.C.P.Lond., 2, Royal Park, Clifton, Bristol.
1884. Cox, L. F., M.R.C.S., Plas Caermeddyg, Llanbedr, R.S.O., Merioneth.
1893. Craig, Maurice, M.A., M.D., B.C.Cantab., F.R.C.P.Lond., 54, Welbeck Street, W. (*Hon. Secretary of Educational Committee, 1905-8; Chairman of Educational Committee since 1912.*)
1897. Cribb, Harry Gifford, M.R.C.S.Eng., L.R.C.P.Lond., Medical Superintendent, Winterton Asylum, Ferryhill, Durham.
1911. Crichlow, Charles Adolphus, M.B., Ch.B.Glas., Tuna Punu, Trinidad, W.I.

1904. Cross, Harold Robert, L.S.A., Storthes Hall Asylum, Kirkburton, near Huddersfield.
1909. Crowther, Sydney Nelson, M.R.C.S., L.R.C.P.Lond., Senior Assistant Medical Officer, Netherne County Asylum, Surrey.
1907. Daniel, Alfred Wilson, B.A., M.D., B.C.Cantab., M.R.C.S., L.R.C.P.Lond., Senior Assistant Medical Officer, London County Asylum, Hanwell, W.
1896. Davidson, Andrew, M.D., Ch.M.Aber., Wyoming, Macquarie Street, Sydney, N.S.W.
1911. Davie, James, M.B., Ch.B.Edin. (House-surgeon, The Infirmary, Peterborough), 84, Braid Road, Edinburgh.
1891. Davis, Arthur N., L.R.C.P., L.R.C.S.Edin., Medical Superintendent, County Asylum, Exminster, Devon.
1894. Dawson, William R., B.A., M.D., B.Ch.Dubl., F.R.C.P.I., D.P.H., Inspector of Lunatics in Ireland, Claremont, Burlington Road, Dublin. (*Hon. Sec. to Irish Division, 1902-11; PRESIDENT, 1911-12.*)
1883. De Lisle, Samuel Ernest, L.R.C.P., L.R.C.S.I., Freaghmore, Lower Bourne, Farnham, Surrey.
1901. De Steiger, Adèle, M.B.Lond., County Asylum, Brentwood, Essex.
1905. Devine, Henry, M.D., B.S., M.R.C.P.Lond., M.R.C.S., Senior Assistant Medical Officer, West Riding Asylum, Wakefield.
1904. Devon, James, L.R.C.P. & S.Edin., 6, Cathedral Square, Glasgow.
1903. Dickson, Thomas Graeme, L.R.C.P. & S.Edin., Medical Superintendent, Wye House, Buxton.
1911. Dickinson, William Gilbert, M.D.Durh., M.R.C.S., L.R.C.P.Lond., D.P.H.Lond., Wood Hill, Portishead, Somerset.
1909. Dillon, Kathleen, L.R.C.P.I., L.M., L.R.C.S.I., Assistant Medical Officer, District Asylum, Mullingar.
1905. Dixon, J. Francis, M.A., M.D., B.Ch.Dubl., Medical Superintendent, Borough Asylum, Leicester.
1879. Dodds, William J., M.D., D.Sc.Edin., Valkenburg, Mowbray, near Cape Town, South Africa.
1911. Donald, John Quin, L.R.C.P.&S.Edin., Medical Superintendent, Ballynaghriam Sanatorium, Port Stewart, Co. Derry.
1908. Donald, Robert, M.B., Ch.B.Glas., Ashton, Plains, Airdrie, N.B.
1889. Donaldson, William Ireland, B.A., M.D., B.Ch.Univ. of Dubl., Medical Superintendent, County of London Manor Asylum, Epsom, Surrey.
1892. Donelan, John O'Connor, L.R.C.P.I., L.R.C.S.I., M.P.C., St. Dymphna's, North Circular Road, Dublin.
1899. Donelan, Thomas O'Connor, L.R.C.P. & L.R.C.S.I., Middlesex County Asylum, Napsbury, near St. Albans, Herts.
1902. Douglas, Archibald R., L.R.C.P.&S.Edin., L.R.F.P.S.Glas., Royal Albert Asylum, Lancaster.
1911. Douglas, Reginald Inglis, M.B., B.S.Durh., M.R.C.S., L.R.C.P., Jameston Manse, Strathpeffer.
1890. Douglas, William, M.D.Queen's Univ. Irel., M.R.C.S.Eng., Brandfold, Goudhurst.
1905. Dove, Augustus Charles, M.D., B.S.Durh., M.R.C.S.Eng., "Brightside," Crouch End Hill, N.
1897. Dove, Emily Louisa, M.B.Lond., 1, Vincent Square, Westminster, S.W.; University Club for Ladies, 4, George Street, Hanover Square, W.
1903. Dow, William Alex., M.D., B.S.Durh., M.R.C.S., L.R.C.P., D.P.H., H.M. Prison, Lewes.
1910. Downey, Michael Henry, M.B., Ch.B.Melb., L.R.C.P.&S.Edin., L.R.F.P.S. Glasg., Assistant Medical Officer, Parkside Asylum, Adelaide, South Australia.
1884. Drapes, Thomas, M.B.Dubl., L.R.C.S.I., Medical Superintendent, District Asylum, Enniscorthy, Ireland. (*PRESIDENT-ELECT, 1910-11; Co-Editor of Journal since 1912.*)
1905. Drew, Capt. Charles Milligan, M.A., M.B., Ch.B.Glas., *R.A.M.C.*, c/o Messrs. Holt & Co., 3, Whitehall Place, S.W.
1907. Dryden, A. Mitchell, M.B., Ch.B.Edin., Woodilee Mental Hospital, Lenzie, N.B.

1902. Dudgeon, Herbert Wm., M.D.Durh., M.R.C.S.Eng., L.R.C.P.Lond.,  
Medical Officer to the Egyptian Asylum, Khanka Asylum, Egypt.
1899. Dudley, Francis, L.R.C.P.&S.I., Senior Assistant Medical Officer,  
County Asylum, Bodmin, Cornwall.
1903. Dunston, John Thomas, M.D., B.S.Lond., Medical Superintendent, West  
Koppies, Pretoria.
1911. Dykes, Percy Armstrong, M.R.C.S., L.R.C.P.Lond., Senior Assistant  
Medical Officer, Fulbourne Asylum, Cambridge.
1899. Eades, Albert I., L.R.C.P. & S.I., North Riding Asylum, Clifton, Yorks.
1903. Eady, George John, M.D.Bruce, M.B.Lond., M.R.C.P.Edin., M.R.C.S.  
Eng., 6, Roland Houses, S. Kensington, S.W.
1874. Eager, Reginald, M.D.Lond., M.R.C.S.Eng., Northwoods, near Bristol.
1906. Eager, Richard, M.B., Ch.B.Aber., Assistant Medical Officer, Devon  
County Asylum, Exminster.
1873. Eager, Wilson, L.R.C.P.Lond., M.R.C.S.Eng., St. Aubyn's, Woodbridge,  
Suffolk.
1881. Earle, Leslie, M.D.Edin., 108, Gloucester Terrace, Hyde Park, W.
1891. Earls, James Henry, M.D., M.Ch. (R.U.I.), D.P.H., L.S.A., Claremont,  
Loughton, Essex.
1903. East, Guy Rowland, M.B., B.S.Durh., Northumberland County Asylum,  
Morpeth.
1907. East, Wm. Norwood, M.D., Lond., M.R.C.S., L.R.C.P., 97, King's  
Avenue, Clapham Park, S.W.
1895. Easterbrook, Charles C., M.A., M.D., F.R.C.P.Ed., Physician Superin-  
tendent, Crichton Royal Institution, Dumfries.
1895. Edgerley, Samuel, M.A., M.D., Ch.M.Edin., Medical Superintendent, West  
Riding Asylum, Menston, nr. Leeds.
1897. Edwards, Francis Henry, M.D.Bruce, M.R.C.P.Lond., Medical Super-  
intendent, Cumberwell House, S.E.
1901. Elgee, Samuel Charles, L.R.C.P., L.R.C.S.I., Senior Assistant Medical  
Officer, London County Asylum, Colney Hatch, N.
1889. Elkins, Frank Ashby, M.D.Edin., Medical Superintendent, Metropolitan  
Asylum, Leavesden, Herts.
1898. Ellerton, Henry B., M.R.C.S., L.R.C.P.Lond., Inspector of the Insane,  
Hospital for the Insane, Goodna, Brisbane, Queensland, Australia.
1912. Ellerton, John Frederick Heise, M.D.Bruce, M.R.C.S.Eng., L.R.C.P.  
Edin., 8, Leam Terrace, Leamington Spa.
1908. Ellis, Edward, M.D.Durh., L.R.C.S.& P.Edin., Craven House, Hopwood  
Lane, Halifax, Yorks.
1890. Ellis, William Gilmore, M.D.Bruce, M.R.C.S.Eng., L.S.A., Principal  
Civil Medical Officer, Singapore, Straits Settlements.
1908. Ellison, Arthur, M.R.C.S., L.R.S.C.P., Deputy Medical Officer, H.M.  
Prison, Leeds, 120, Domestic Street, Holbeck, Leeds.
1899. Ellison, F. C., M.D., B.Ch., T.C.D., Assistant Medical Officer, District  
Asylum, Castlebar.
1911. Elmslie, Isabella Galloway, M.D.Edin., Assistant Medical Officer, Stirling  
District Asylum, Larbert.
1911. English, Ada, M.B., B.Ch. (R.U.I.), Assistant Medical Officer, District  
Asylum, Ballinasloe.
1901. Erskine, Wm. J. A., M.D., Ch.M.Edin., Senior Assistant Medical Officer,  
City Asylum, Nottingham.
1895. Eurich, Frederick Wilhelm, M.D., Ch.M.Edin., 8, Mornington Villas,  
Manningham Lane, Bradford.
1894. Eustace, Henry Marcus, M.D., B.Ch., B.A.Dubl., Assistant Physician,  
Hampstead and Highfield Private Asylum, Glasnevin, Dublin.
1909. Eustace, William Neilson, L.R.C.S.&P.Irel., L.M., Lisronagh, Glasnevin,  
co. Dublin.
1909. Evans, George, M.B.Lond., Assistant Medical Officer, London County  
Asylum, Bexley.

1891. Ewan, John Alfred, M.A.St. And., M.D.Edin., Greyness, Sleaford, Lincs.
1884. Ewart, C. T., M.D., Ch.M.Aberd., Senior Assistant Medical Officer, Claybury Asylum, Woodford Bridge, Essex.
1906. Ewens, George Francis William, Major I.M.S. Bengal, c/o Messrs. Grindlay & Co., 54, Parliament Street, S.W.
1907. Exley, John, L.R.C.P.I., L.M., M.R.C.S., Medical Officer, H.M. Prison; Grove House, New Wortley, Leeds.
1894. Farquharson, William F., M.D.Edin., Medical Superintendent, Counties Asylum, Garlands, Carlisle.
1907. Farries, John Stoddart, L.R.C.P., L.R.C.S.Edin., Brighton, South Australia.
1908. Faulks, Edgar, M.R.C.S., L.R.C.P.Lond., Senior Assistant Medical Officer, London County Asylum, Bexley.
1903. Fennell, Charles Henry, M.A., M.D.Oxon, M.R.C.P.Lond., Senior Assistant Medical Officer, East Sussex Asylum, Hellingly, Sussex.
1908. Fenton, Henry Felin, M.B., Ch.B.Edin., Assistant Medical Officer, County and City Asylum, Powick, Worcester.
1907. Ferguson, J. J. Harrower, M.B., Ch.B.Edin., Senior Assistant Medical Officer, Fife and Kinross Asylum, Cupar, Fife.
1897. Fielding, James, M.D., Victoria Univ., Canada, M.R.C.S.Eng., L.R.C.P. Edin., 18, The Crescent, Norwich.
1903. Fielding, Saville James, M.B., B.S.Durh., Bethel Street, Norwich.
1873. Finch, John E. M., M.A., M.D.Cantab., M.R.C.S.Eng., Holmdale, Stonegate, Leicester.
1889. Finch, Richard T., B.A., M.B.Cantab., Medical Superintendent, Fisherton House, Salisbury.
1882. Finegan, A. D. O'Connell, L.R.C.P.I. (*Hon. Sec. for Irish Division, 1898-1902.*)
1889. Finlay, David, M.D.Glasg., Medical Superintendent, County Asylum, Bridgend, Glamorgan.
1906. Firth, Arthur Hareus, M.A., M.B., B.Ch.Edin., Wadsley Asylum, near Sheffield.
1903. Fitzgerald, Alexis, L.R.C.P. & S.I., L.M., District Asylum, Waterford.
1894. Fitzgerald, Charles E., M.D., M.Ch.Dubl., F.R.C.S.I., Surgeon-Oculist to the King in Ireland, 27, Upper Merrion Street, Dublin.
1888. Fitz-Gerald, Gerald C., M.D., B.C.Cantab., M.P.C., Medical Superintendent, Kent County Asylum, Chartam, nr. Canterbury.
1903. Fitzgerald, James Francis, L.R.C.P.&S.Irel., L.M., Assistant Medical Officer, District Asylum, Clonmel, Ireland.
1904. Fleming, Wilfrid Louis Remi, M.R.C.S., L.R.C.P., Suffolk House, Pirbright, Surrey.
1894. Fleury, Eleonora Lillian, M.D., B.Ch. (R.U.I.), Assistant Medical Officer, Richmond Asylum, Dublin.
1908. Flynn, Thos. Aloysius, L.R.C.P.&S.I.,
1902. Forde, Michael J., M.D., M.Ch. (R.U.I.), Assistant Medical Officer, Portrane Asylum, Ireland.
1911. Forrester, Archibald Thomas William, M.D., B.S.Lond., M.R.C.S., L.R.C.P., Senior Assistant Medical Officer, Leicester and Rutland Counties Asylum, Narborough.
1902. Forster, Hermann Julius, L.R.C.P.I., L.S.A., Assistant Medical Officer, Brighton Borough Asylum, Hayward's Heath.
1906. Forster, R. A., M.B., Ch.B.Aber., The Asylum, Graham's Town, Cape Colony, S. Africa.
1906. Fortune, John, M.D., Ch.B.Edin., Medical Officer of Health, Municipal Office, Newcastle, Staffordshire.
1909. Foulerton, Alexander Grant Russell, F.R.C.S.Eng., L.R.C.P.Lond., D.P.H.Cantab. (*County Medical Officer of Health for E. Sussex*), Middlesex Hospital, W., Wealdside, Lewis.
1861. Fox, Charles H., M.D.St. And., M.R.C.S.Eng., 35, Heriot Row, Edinburgh.

1912. Fox, Charles J., M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer, Middlesex County Asylum, Napsbury, St. Albans.
1881. Fraser, Donald, M.D., Ch.M.Glasg., F.R.F.P.S., 3, Orr Square, Paisley.
1901. French, Louis Alexander, M.R.C.S., L.R.C.P., H.M. Prison, Portland, Dorset.
1902. Fuller, Lawrence Otway, M.R.C.S.Eng., L.R.C.P.Lond., Medical Superintendent, Three Counties' Asylum, Hitchin, Herts.
1906. Gaue, Edward Palmer Steward, M.D.Dunelm, M.R.C.S.Eng., L.R.C.P. Lond., Borough Asylum, Ryehope, Sunderland.
1890. Gaudin, Francis Neel, M.R.C.S., L.S.A., M.P.C., Medical Superintendent, The Grove, St. Lawrence, Jersey.
1912. Garry, John William, M.B., B.Ch., B.A.O., National University of Ireland, Assistant Medical Officer, Ennis District Asylum, Ireland.
1912. Gavin, Lawrence, M.B., Ch.B.Edin., L.R.C.P.&S.Edin., L.R.F.P.S. Glasg., Medical Superintendent, Mullingar District Asylum, Ireland.
1885. Gayton, Francis C., M.D.Aberd., M.R.C.S.Eng., Medical Superintendent, County Asylum, Netherne, Merstham, Surrey.
1908. Geale, William James, L.R.C.P.Edin., L.R.F.P.S.Glasg., Assistant Medical Officer, Scalebor Park, Burley-in-Wharfedale, Yorks.
1896. Geddes, John W., M.B., Ch.M.Edin., Medical Superintendent, County Borough Asylum, Berwick Lodge, Middlesbrough, Yorks.
1892. Gemmel, James Francis, M.B.Glasg., Medical Superintendent, County Asylum, Whittingham, Preston.
1910. Gibson, G. H. Rae, M.B., Ch.B.Edin., M.R.C.P.Edin., Assistant Physician, 2186, Seventh Avenue, W. Kitsieans, Vancouver.
1899. Gilfillan, Samuel James, M.A., M.B.Edin., Medical Superintendent, London County Asylum, Colney Hatch.
1910. Gilfillan, William, M.B., Ch.B.Glasg., St. Ann's Asylum, Port of Spain, Trinidad, B.W.I.
1912. Gill, Eustace Stanley Hayes, M.B., Ch.B.Liverp., Shaftesbury House, Formby, Liverpool.
1889. Gill, Stanley, B.A.Dubl., M.D.Dubl., M.D.Durh., M.R.C.P.Lond., M.R.C.S.Eng., Shaftesbury House, Formby, Liverpool.
1904. Gillespie, Daniel, M.D. B.Ch. (R.U.I.), Wadsley Asylum, near Sheffield.
1897. Gilmour, John Rutherford, M.B., F.R.C.P.Edin., Medical Superintendent, West Riding Asylum, Scalebor Park, Burley-in-Wharfedale, Yorks.
1906. Gilmour, Richard Withers, M.B., B.S.Durh., M.R.C.S., L.R.C.P.Lond., Assistant Medical Officer, St. Luke's Hospital, E.C.
1911. Gilmour, Walter, M.B., Ch.B.Glasg., The Laurels, Hamilton, N.B.
1878. Glendinning, James, M.D.Glasg., L.R.C.S.Edin., L.M., Medical Superintendent, Joint Counties Asylum, Abergavenny.
1909. Gloyne, Stephen Roodhouse, M.B., B.Ch.Leeds, D.P.H.Lond. (*Assistant Medical Officer, East Sussex Educational Committee*), 44, Hendrick Avenue, Wandsworth Common, S.W.
1898. Goldie-Scot, Thomas G., M.B., Ch.M.Edin., M.R.C.S., L.R.C.P., Pitmuir, Pencaitland, N.B.
1897. Good, Thomas Saxty, M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer, County Asylum, Littlemore, Oxford.
1889. Goodall, Edwin, M.D., B.S.Lond., F.R.C.P., Medical Superintendent, City Asylum, Cardiff.
1899. Gordon, James Leslie, M.B., Ch.B.Aberd., Tooting B.C. Asylum, Tooting, London, S.W.
1905. Gordon-Munn, John Gordon, M.D.Edin., F.R.S.E., Heigham Hall, Norwich.
1901. Gostwyck, C. H. G., M.B., Ch.B., M.R.C.P.Edin., Stirling District Asylum, Larbert.
1912. Graham, Gilbert Malise, M.B., Ch.B.Edin., Assistant Medical Officer, Stirling District Asylum, Larbert.

1894. Graham, Samuel, L.R.C.P.&S.Edin., L.R.F.P.S.Glasg., Medical Superintendent, District Asylum, Antrim.
1887. Graham, William, M.D. (R.U.I.), L.R.C.S.Edin., Medical Superintendent, District Lunatic Asylum, Belfast.
1908. Graham, William S., M.B., B.Ch., B.A.O., R.U.I., Assistant Medical Officer, Somerset and Bath Asylum, near Taunton.
1910. Gray, Theodore Grant, M.B., Ch.B.Aberd., Mental Hospital, Porirua, Wellington, New Zealand.
1909. Greene, Thomas Adrian, L.R.C.S.Irel., L.M., R.C.P.Irel., Medical Visitor, Chancery Court, The Castle, Dublin.
1886. Greenlees, T. Duncan, M.D.Edin., F.R.S.E., Fenstanton, Christ Church Road, Streatham Hill, S.W.
1912. Greeson, Clarence Edward, M.B., Ch.B.Aberd., Assistant Medical Officer, Barnwood House, Gloucester.
1904. Griffin, Ernest Harrison, B.A.Cantab., L.S.A.Lond., El Pèrù via San Felice, Venezuela.
1901. Grills, Galbraith Hamilton, M.D., B.Ch. (R.U.I.), Medical Superintendent, "Elmwood," Liverpool Road, Chester.
1900. Grove, Ernest George, M.R.C.S., L.R.C.P., Bootham Park, York.
1907. Grünbaum, Helen Gertrude, M.B., Ch.B.Birm., St. Helen's Adel., Leeds.
1894. Gwynn, Charles Henry, M.D.Edin., co-Licencee, St. Mary's House, Whitechurch, Salop.
1894. Halsted, Harold Cecil, M.D.Durh., Medical Superintendent, Peckham House, Peckham.
1903. Hanbury, Langton Fuller, M.R.C.S.Eng., L.R.C.P.Lond., West Ham Borough Asylum, Ilford, Essex.
1901. Harding, William, M.D.Edin., M.R.C.P.Lond., Medical Superintendent, Northampton County Asylum, Berry Wood, Northampton.
1899. Harmer, W. A., L.S.A., Resident Superintendent and Licensee, Redlands Private Asylum, Tonbridge, Kent.
1904. Harper-Smith, George Hastie, B.A.Cantab., M.R.C.S., L.R.C.P.Lond., Senior Assistant Medical Officer, Brighton County Borough Asylum, Haywards Heath.
1898. Harris-Liston, L., M.D., M.R.C.S., L.R.C.P.Lond., L.S.A., Middleton Hall, Middleton St. George, Co. Durham.
1905. Hart, Bernard, M.B.Lond., M.R.C.S.Eng., 29B, Wimpole Street, and Northumberland House, Finsbury Park, N.
1886. Harvey, Bagenal Crosbie, L.R.C.P.&S.Edin., L.A.H.Dubl., Resident Medical Superintendent, District Asylum, Clonmel.
1892. Haslett, William John, M.R.C.S., L.R.C.P., Resident Medical Superintendent, Halliford House, Upper Halliford, Shepperton.
1891. Havelock, John G., M.D., Ch.M.Edin., Physician Superintendent, Montrose Royal Asylum.
1890. Hay, J. F. S., M.B., Ch.M.Aberd., Inspector-General of Asylums for New Zealand, Government Buildings, Wellington, New Zealand.
1900. Haynes, Horace E., M.R.C.S., L.S.A., Littleton Hall, Brentwood.
1895. Hearder, Frederic P., M.D., Ch.M.Edin., Medical Superintendent, Yorkshire Inebriate Reformatory, Cattal, Whixley, near York.
1911. Heasman, Herbert Wilks, M.R.C.S., L.R.C.P.Lond., Bethlem Royal Hospital, Lambeth Road, S.E.
1911. Heffernan, Capt. P., I.M.S., B.A., M.B., B.Ch. (R.U.I.), Locock's Gardens, Kilpaul, Madras.
1905. Henderson, George, M.A., M.B.Edin., 25, Commercial Road, Peckham, S.E.
1906. Herbert, Thomas, M.R.C.S.Eng., L.R.C.P.Lond., York City Asylum, Fulford, York.
1877. Hetherington, Charles E., B.A., M.B., M.Ch.Dubl., Medical Superintendent, District Asylum, Londonderry, Ireland.
1877. Hewson, R. W., L.R.C.P.&S.Edin., Medical Superintendent, Coton Hill, Stafford.

1902. Higginson, John Wigmore, M.R.C.S., L.R.C.P.Lond., Resident Medical Officer, Hayes Park Asylum, Hayes Park, Middlesex.
1912. Higson, William Davis, M.B., Ch.B.Liverp., Deputy Medical Officer, H.M. Prison, Brixton; 7, Clovelly Gardens, Upper Tulse Hill, S.W.
1882. Hill, H. Gardiner, M.R.C.S.Eng., L.S.A., Pentillie, Leopold Road, Wimbledon Park, S.W.
1912. Hill, William Bertram, M.D., B.C.Vict., Assistant Medical Officer, and Pathologist, Croydon Mental Hospital, Warlingham, Surrey.
1907. Hine, T. Guy Macaulay, M.A., M.D., B.C.Cantab., 37, Hertford Street, Mayfair, W.
1909. Hodgson, Harold West, M.R.C.S., L.R.C.P.Lond., Assistant Medical Officer, Barnsley Hall Asylum, Bromsgrove, Worcestershire.
1908. Hogg, Archibald, M.B., Ch.B.Glas., 47, Love Street, Paisley, N.B.
1900. Holländer, Bernard, M.D.Freib., M.R.C.S., L.R.C.P.Lond., 57, Wimpole Street, W.
1912. Holyoak, Walter, L., M.D., B.S.Lond., Assistant Medical Officer, Camberwell House, S.E.
1903. Hopkins, Charles Leighton, B.A., M.B., B.C.Cantab., York City Asylum, Fulford, York.
1894. Hotchkiss, Robert D., M.A.Glasg., M.D., B.S.Durh., M.R.C.S., L.R.C.P.Lond., Renfrew Asylum, Dykebar, N.B.
1907. Howard, S. Carlisle, M.B., Ch.B.Aberd., Senior Assistant Medical Officer, County Asylum, Chester.
1912. Hughes, Frank Percival, M.B., B.S.Lond., M.R.C.S., L.R.C.P., The Grove, Pinner, Middlesex.
1900. Hughes, Percy T., M.B., Ch.M.Edin., D.P.H.Lond., Medical Superintendent, Worcestershire County Asylum, Barnsley Hall, Bromsgrove.
1913. Hughes, Robert, M.B.Lond., M.R.C.S., L.R.C.P., M.P.C. (*School Medical Officer, County Borough of Stoke-on-Trent*), Heron House, Fenton, Stoke-on-Trent.
1904. Hughes, William Stanley, M.R.C.S., L.R.C.P., Medical Superintendent, County Asylum, Denbigh.
1897. Hunter, David, M.A., M.B., B.C.Cantab., Medical Superintendent, West Ham Borough Asylum, Goodmayes, Ilford, Essex. (*Secretary for S.E. Division from 1910.*)
1909. Hunter, Douglas William, M.B., Ch.M.Glasg., Assistant Medical Officer, North Riding Asylum, Clifton, York.
1912. Hunter, George Yeates Cobb, Major, *I.M.S.*, M.R.C.S., L.R.C.P.Lond., c/o Messrs. Grindlay & Co., 54, Parliament Street, S.W.
1904. Hunter, Percy Douglas, M.R.C.S., L.R.C.P.Lond., East Sussex County Asylum, Hellingly, Sussex.
1882. Hyslop, James, *D.S.O.*, M.B., Ch.M.Edin., Natal Government Asylum, Pietermaritzburg.
1888. Hyslop, Theo. B., M.D., C.M.Edin., M.R.C.P.E., 5, Portland Place, London, W.
1908. Inglis, J. P. Park., M.B., Ch.B.Edin., Assistant Medical Officer, Fountain Temporary Asylum, Tooting Grove, Tooting Graveney, S.W.
1906. Irwin, Peter Joseph, L.R.C.P.&S.I., L.M., Assistant Medical Officer, District Asylum, Limerick.
1911. Jackson, David James, B.A., M.B., B.Ch. (R.U.I.), Assistant Medical Officer, County Asylum, Chester.
1908. Jeffrey, Geo. Rutherford, M.B., Ch.B.Glas., Bootham Park, York.
1907. Jex-Blake, Bertha, M.B., Ch.B.Edin., 13, Eunismore Gardens, S.W.
1910. Johnson, Cecil, M.B., Ch.B.Vict., 6, Palewell Park, East Sheen, S.W.
1893. Johnston, Gerald Herbert, L.R.C.S. and L.R.C.P.Edin., Brooke House, Upper Clapton, N.
1905. Johnston, Thomas Leonard, L.R.C.P.&S.Edin., L.R.F.P.S.Glas., Bracebridge Asylum, Lincoln.
1912. Johnstone, Emma May, L.R.C.P. & S.Edin., Holloway Sanatorium, Virginia Water, Surrey.



1878. Johnstone, J. Carlyle, M.D., C.M.Glasg., Medical Superintendent, Roxburgh District Asylum, Melrose.
1903. Johnstone, Thomas, M.D.Edin., M.R.C.P.Lond., Annandale, Harrogate.
1880. Jones, D. Johnston, M.D.Edin., Mona, Abbey Road, West Worthing.
1882. Jones, Robert, M.D.Lond., B.S., F.R.C.P., F.R.C.S., Medical Superintendent, London County Asylum, Claybury, Woodford, Essex. (*Gen. Secretary from 1897 to 1906.*) (PRESIDENT 1906-7.)
1898. Jones, W. Ernest, M.R.C.S.Eng., L.R.C.P.Lond., The Old Treasury Buildings, Spring Street, Melbourne.
1879. Kay, Walter S., M.D., Ch.M.Edin., M.R.C.S.Eng., 1, Rutland Park, Sheffield.
1886. Keay, John, M.D.Glasg., F.R.C.P.Edin., Medical Superintendent, Bangour Village, Uphall, Linlithgowshire.
1909. Keith, William Brooks, M.B., Ch.B.Aberd., Assistant Medical Officer, Kent County Asylum, Maidstone.
1909. Kellas, Arthur, M.B., Ch.B., D.P.H.Aberd., Senior Assistant Physician, Royal Asylum, Aberdeen.
1908. Kelly, Richard, M.B., B.Ch., B.A.C.Dub., Assistant Medical Officer, Storthes Hall Asylum, Kirkburton, near Huddersfield.
1898. Kemp, Norah, M.B., Ch.M.Glas., The Retreat, York.
1907. Keene, George Henry, M.D. (T.C.D.), 14, Palmerston Park, Rathmines, Dublin.
1911. Kennedy, Lt.-Col. Arthur (*R.A.M.C.*), L.R.C.P.&S.Irel., Royal Victoria Hospital, Netley.
1899. Kennedy, Hugh T. J., L.R.C.P.&S.I., L.M., Assistant Medical Officer, District Asylum, Enniscorthy, Wexford.
1910. Kerr, G. Lawson, M.B., Ch.B.Glasg., 19, Queen Square, Regent's Park, Glasgow.
1897. Kerr, Hugh, M.A., M.D.Glasg., Medical Superintendent, Bucks County Asylum, Stone, Aylesbury, Bucks.
1902. Kerr, Neil Thomson, M.B., Ch.M.Ed., Medical Superintendent, Lanark District Asylum, Hartwood, Shotts, N.B.
1893. Kershaw, Herbert Warren, M.R.C.S.Eng., L.R.C.P.Lond., Dinsdale Park, near Darlington.
1897. Kidd, Harold Andrew, M.R.C.S.Eng., L.R.C.P.Lond., Medical Superintendent, West Sussex Asylum, Chichester.
1903. King, Frank Raymond, B.A.Cantab., M.R.C.S.Eng., L.R.C.P.Lond., Medical Superintendent, Peckham House, Peckham, S.E.
1897. Kingdon, Wilfred, M.B., B.S.Durb., 160, Goldhawk Road, W.
1905. Kingsbury, William Neave, M.R.C.S., L.R.C.P.Lond., 15, Blackheath Rise, Lewisham, S.E.
1902. King-Turner, A. C., M.B., Ch.M.Edin., The Retreat, Fairford, Gloucestershire.
1899. Kirwan, James St. L., B.A., M.B., B.Ch., B.A.O. (R.U.I.), Medical Superintendent, District Asylum, Ballinasloe, Ireland.
1903. Kough, Edward Fitzadam, M.B., B.Ch.Dubl., Senior Assistant Medical Officer, County Asylum, Gloucester.
1898. Labey, Julius, M.R.C.S., L.R.C.P.Lond., L.S.A., Medical Superintendent, Public Asylum, Jersey.
1902. Langdon-Down, Percival L., M.A., M.B., B.C.Cantab., Dixland, Hampton Wick, Middlesex.
1896. Langdon-Down, Reginald L., M.A., M.B., B.C.Cantab., M.R.C.P.Lond., Normansfield, Hampton Wick.
1909. Laurie, James, M.B., Ch.M.Glasg. (*Medical Officer, Smithston Asylum*), Red House, Ardgowan Street, Greenock.
1902. Laval, Evariste, M.B., Ch.M.Edin., Princess Christian's Colony for Feeble-minded, Hildenborough, Kent.

1898. Lavers, Norman, M.D.Brux., M.R.C.S., L.R.C.P.Lond., Medical Superintendent, Bailbrook House, Bath.
1899. Law, Charles D., L.R.C.P.&S.Edin., L.R.F.P.S., 117, Wilderspool Road, Warrington.
1892. Lawless, George Robert, F.R.C.S.I., Medical Superintendent, District Asylum, Armagh.
1870. Lawrence, Alexander, M.A., M.D.Aberd., 26, Hough Green, Chester.
1883. Layton, Henry A., M.R.C.S.Eng., L.R.C.P.Edin., Cornwall County Asylum, Bodmin.
1900. Leech, John Frederick Wolseley, M.D.Dubl., County Asylum, Devizes, Wilts.
1899. Leeper, Richard R., F.R.C.S.I., Medical Superintendent, St. Patrick's Hospital, Dublin. (*Hon. Sec. to the Irish Division from 1911.*)
1905. Le Fanu, Hugh, M.B., Ch.M.Aber., Salaga, Northern Territorial Force, Gold Coast Colony, West Africa.
1883. Legge, Richard J., M.D., Medical Superintendent, County Asylum, Mickleover, Derby.
1906. Leggett, William, B.A., M.B., B.Ch.Dubl., Assistant Medical Officer Royal Asylum, Sunnyside, Montrose.
1894. Lentaigue, Sir John, B.A., F.R.C.S.I., Medical Visitor of Lunatics to the Court of Chancery, 42, Merrion Square, Dublin.
1863. Ley, H. Rooker, M.R.C.S.Eng., Beaulieu, Westhy Road, Boscombe, Hants.
1908. Littlejohn, Edward Salteine, M.R.C.S., L.R.C.P.Lond., Senior Assistant Medical Officer, London County Asylum, Cane Hill, Surrey.
1903. Logan, Thomas Stratford, L.R.C.P.&S.Edin., L.F.P.S.Glas., D.P.H., Devon County Asylum, Exminster.
1899. Longworth, Stephen G., L.R.C.P., L.R.C.S.I., County Asylum, Melton, Suffolk.
1898. Lord, John R., M.B., Ch.M.Edin., Medical Superintendent, London County Asylum, Horton, Epsom. (*Co-Editor of Journal since 1911; Assistant Editor of Journal, 1900-11.*)
1906. Lowry, James Arthur, M.D., B.Ch., B.A.O. (R.U.I.), Medical Superintendent, Surrey County Asylum, Brookwood.
1904. Lyall, C. H. Gibson, L.R.C.P.&S.Edin., Leicester Borough Asylum, Leicester.
1906. Lyell, John Hepburn, M.D., Ch.M.Glasg., Assistant Medical Officer to H.M. Prison, the Royal Infirmary, and Parish Council, Perth, 15, Marshall Place, Perth.
1872. Lyle, Thomas, M.D.Glasg., 34, Jesmond Road, Newcastle-on-Tyne.
1906. Macarthur, John, M.R.C.S., L.R.C.P.Lond., Assistant Medical Officer, Colney Hatch Asylum, London, N.
1899. Macartney, William H. C., L.R.C.P.&S.I., Riverhead House, Sevenoaks.
1911. Macaskill, Donald Cameron, M.B., Ch.B.Edin., Medical Officer, Malay States.
1880. MacBryan, Henry C., L.R.C.P. & S. Edin., Kingdown House, Box, Wilts.
1911. McCalman, Hugh, M.B., Ch.B.Edin., Assistant Medical Officer, County Asylum, Lancaster.
1900. McClintock, John, L.R.C.P. & L.R.C.S.Edin., Resident Medical Superintendent, Grove House, Church Stretton, Salop.
1900. McConaghey, John C., M.D., Ch.B.Edin., Medical Superintendent, Parkside Asylum, Macclesfield, Cheshire.
1901. MacDonald, James H., M.B., Ch.B.Glasg., Govan District Asylum, Hawkhead, Paisley, N.B.
1884. MacDonald, P. W., M.D., Ch.M.Aberd., Medical Superintendent, Dorset County Asylum, Herrison, Dorchester. (*First Hon. Sec. S.W. Division 1894 to 1905.*) (PRESIDENT, 1907-8.)
1911. MacDonald, Ranald, M.B., Ch.B.Edin., Assistant Medical Officer, London County Asylum, Bexley, Kent.
1905. MacDonald, William Fraser, M.B., Ch.B.Edin., Olive Lodge, Polworth Terrace, Edinburgh.

1905. McDougall, Alan, M.D.Vict., M.R.C.S., L.R.C.P.Lond., Medical Director, The David Lewis Colony, Sandle Bridge, near Alderley Edge, Cheshire.
1911. McDougall, William, M.A., M.B., B.C.Cantab., M.Sc.Vict. (*Wilde Reader in Psychology, Univ. Oxf.*), Foxcombe Hill, Oxford.
1906. McDowall, Colin Francis Frederick, M.D., B.S.Durh., Senior Assistant Medical Officer, County Asylum, Cheddleton, Staffs.
1870. McDowall, Thomas W., M.D.Edin., L.R.C.S., Medical Superintendent, Northumberland County Asylum, Morpeth. (PRESIDENT, 1897-8.)
1893. Macevoy, Henry John, M.D., B.Sc.Lond., M.P.C., 19, Mowbray Road, Brondesbury, London, N.W.
1895. Macfarlane, Neil M., M.D.Aber., Medical Superintendent, Government Hospital, Thlotse Heights, Leribe, Basutoland, South Africa.
1883. Macfarlane, W. H., M.B. and Ch.B.Univ. of Melbourne, Medical Superintendent, Hospital for the Insane, New Norfolk, Tasmania.
1902. McGregor, John, M.B., Ch.B.Edin., Assistant Medical Officer, County Asylum, Bridgend, Glam.
1906. MacIraith, Alex. Robert MacIntyre, L.R.C.P.&S.Edin., L.R.F.P.S.Glasg., Holly House, Rawtenstall, Lancs.
1905. MacIraith, William MacLaren, L.R.C.P. & S.Edin., L.R.F.P.S.Glasg., L.D.S., Holly House, Rawtenstall, Lancs.
1899. McKelvey, Alexander Niel, L.R.C.P.&S.I., L.M., Costley House, Epsom, Auckland, New Zealand.
1910. McKenzie, Ivy, M.B., Ch.B.Glasg., Director, Western Asylums Research Institute, Glasgow, 10, Claythorn Road, Glasgow.
1911. Mackenzie, John Cosserat, M.B., Ch.B.Edin., Blackie House, University Hall, Edinburgh.
1891. Mackenzie, Henry J., M.B., C.M.Edin., M.P.C., Assistant Medical Officer, The Retreat, York.
1911. MacKenzie, Marion Ellen, M.B., Ch.B.Edin. (*Medical Examiner for the Board of Education*).
1903. Mackenzie, Theodore Charles, M.B., Ch.B.Edin., District Asylum, Inverness.
1909. MacKenzie, William Tuach, M.D., Medical Superintendent, Royal and District Asylums, Dundee.
1899. Mackeown, William John, A.B., M.B., B.Ch. (R.U.I.), Assistant Medical Officer, County Asylum, Fareham, Hants.
1910. McKillop, Alexander Cameron, M.B., Ch.B.Edin., Senior Physician, Mental Hospital, Porirua, Wellington, New Zealand.
1909. MacLachlan, John Thomson, M.D.Glasg. (*Assistant Physician, Glasgow Royal Infirmary*), 310, Renfrew Street, Glasgow.
1904. Macnamara, Eric Danvers, M.A., M.B., 54, Welbeck Street, W.
1898. Macnaughton, George W. F., M.D., F.R.C.S.Edin., M.B.C.P.Lond., 33, Lower Belgrave Street, Eaton Square, London, S.W.
1910. MacPhail, Hector Duncan, M.A., M.B., Ch.B.Edin., Assistant Medical Officer, City Asylum, Gosforth, Newcastle-on-Tyne.
1882. Macphail, S. Rutherford, M.D.Edin., Derby Borough Asylum, Rowditch, Derby.
1896. Macpherson, Charles, M.D.Glasg., Deputy Commissioner in Lunacy, 55, Morningside Park, Edinburgh.
1901. McRae, G. Douglas, M.D.Edin., F.R.C.P.Ed., Medical Superintendent, District Asylum, Ayr, N.B.
1902. Macrae, Kenneth Duncan Cameron, M.B., Ch.B.Edin., Bangour Village, Doehmont, Linlithgowshire.
1894. McWilliam, Alexander, M.A., M.B., C.M.Aber., Waterval, Odiham, Winchfield, Hants.
1908. Mapother, Edward, M.D., B.S.Lond., F.R.C.S.Eng., Assistant Medical Officer, London County Asylum, Long-Grove, Epsom.
1903. Marnan, John, B.A., M.B., B.Ch.Dubl., Senior Assistant Medical Officer, Second County Asylum, Gloucester.

1896. Murr, Hamilton C., M.D.Glasg., F.R.F.P.S., Commissioner in Lunacy, 46, Murrayfield Avenue, Edinburgh. (*Hon. Sec. Scottish Division, 1907-1910.*)
1913. Marshall, Robert, M.B., Ch.B.Glas., Assistant Medical Officer, Gartloch Mental Hospital, Gartcosh, N.B.
1905. Marshall, Robert Macnab, M.D., Ch.B.Glasg., Gartnavel Royal Asylum, Glasgow.
1908. Martin, Henry Cooke, M.B., Ch.B.Edin., Assistant Medical Officer, Newport Borough Asylum, Caerleon.
1896. Martin, James Charles, L.R.C.S.I., L.M., L.R.C.P., Assistant Medical Officer, District Asylum, Letterkenny, Donegal.
1908. Martin, James Ernest, M.B., B.S.Lond., M.R.C.S., L.R.C.P., Assistant Medical Officer, London County Asylum, Long-Grove, Epsom.
1907. Martin, Mary Edith, L.R.C.P.&S.Edin., L.R.F.G.S.Glas., L.S.A.Lond., Bailbrook House, Bath.
1911. Martin, William Lewis, M.A., B.Sc., M.B., Ch.M.Edin. (*Certifying Physician in Lunacy, Edinburgh Parish Council*), 56, Bruntsfield Place, Edinburgh.
1910. Masson, Charles Armit, M.A., M.B., Ch.B.Aberd., Coton Hill, Stafford.
1911. Mathieson, James Moir, M.B., Ch.B.Aber., Assistant Medical Officer, Wadsley Asylum, Sheffield.
1904. May, George Francis, M.D., C.M. (McGill), L.S.A., Winterton Asylum, Ferryhill, Durham.
1912. Melville, William Spence, M.B., Ch.B.Glas., Woodilee Mental Hospital, Lenzie, Glasgow.
1890. Menzies, William F., M.D., B.Sc.Edin., M.R.C.P.Lond., Medical Superintendent, Stafford County Asylum, Cheddleton, near Leek.
1891. Mercier, Charles A., M.D.Lond., F.R.C.P., F.R.C.S.Eng., late Lecturer on Insanity, Westminster Hospital; Moorcroft, Parkstone, Dorset. (*Secretary Educational Committee, 1893-1905. Chairman do. from 1905-12.*) (PRESIDENT, 1908-9.)
1877. Merson, John, M.A., M.D.Aber., Medical Superintendent, Borough Asylum, Hull.
1871. Mickle, William Julius, M.D., F.R.C.P.Lond., 69, Linden Gardens, Bayswater, W. (PRESIDENT, 1896-7.)
1893. Middlemass, James, M.A., M.D., C.M., B.Sc.Edin., F.R.C.P., Medical Superintendent, Borough Asylum, Ryhope, Sunderland.
1910. Middlemiss, James Ernest, M.R.C.S.Eng., L.R.C.P.Lond., 149, Barnsley Road, Cudworth, near Barnsley, Yorks.
1912. Middlemiss, Kenneth C., M.B., Ch.B.Glasg., Assistant Medical Officer, Woodilee Mental Hospital, Lenzie.
1883. Miles, George E., M.R.C.S., L.R.C.P.Lond., Medical Superintendent, Hospital for the Insane, Rydalmere, New South Wales.
1887. Miller, Alfred, M.B. and B.C.Dubl., Medical Superintendent, Hatton Asylum, Warwick. (*Registrar since 1902.*)
1904. Miller, James Webster, M.B., Ch.B.Aberd., Wonford House, Exeter.
1911. Miller, Margaret Mair, M.B., Ch.B.Edin., Assistant Medical Officer, Northumberland County Asylum, Morpeth.
1912. Miller, Fleet-Surgeon Richard, R.N., M.B., B.Ch.Dubl., Medical Superintendent, Naval Hospital, Great Yarmouth.
1893. Mills, John, M.B., B.Ch., and Diploma in Mental Diseases, R.U.I. District Asylum, Ballinasloe, Ireland.
1881. Mitchell, Richard Blackwell, M.D., C.M.Edin., Medical Supt., Midlothian District Asylum.
1911. Moffett, Thomas James Simpson, M.B., Ch.B.(R.U.I.), Gallgoom Road, Ballymena, Ireland.
1911. Moll, Jan. Marius, Doc. in Arts and Med, Utrecht Univ., L.M.S.S.A. Lond., West Koppies Asylum, Pretoria, S. Africa.
1910. Monnington, Richard Caldicott, M.D., Ch.B.Univ.Edin., D.P.H.Edin., Medical Superintendent, Laverstock House, Salisbury.
1878. Moody, Sir James M., M.R.C.S.Eng., L.R.C.P.&L.M.Edin., Medical Superintendent, County Asylum, Cane Hill, Coulsdon, Surrey.
1911. Moon, George Bassett, L.R.C.P. & S.Edin., L.R.F.P.S.Glasg., Assistant Medical Officer, County Association, Maidstone, Kent.

1885. Moore, Edw. E., M.D.Dubl., M.P.C., Medical Superintendent, District Asylum, Letterkenny, Ireland.
1899. Moore, Wm. D., M.D., M.Ch. (R.U.I.), Medical Superintendent, Holloway Sanatorium, Virginia Water, Surrey.
1892. Morrison, Cuthbert S., L.R.C.P. and L.R.C.S. Edin., Medical Superintendent, County and City Asylum, Burghill, Hereford.
1910. Morton, Hugh, M.B., Ch.B. Glasg., 35, Kelvingrove Street, Glasgow.
1896. Morton, W. B., M.D. Lond., Assistant Medical Officer, Wonford House, Exeter.
1896. Mott, F. W., M.D., B.S., F.R.C.P. Lond., F.R.S., 25, Nottingham Place, W.
1896. Mould, Gilbert E., M.R.C.S., L.R.C.P. Lond., The Grange, Rotherham, Yorks.
1897. Mould, Philip G., M.R.C.S. Eng., L.R.C.P. Lond., Overdale, Whitefield, Manchester.
1908. Muirhead, Winifred, L.R.C.P., L.R.C.S. Edin., Assistant Medical Officer, Royal Asylum, Morning-side, Edinburgh.
1907. Mules, Bertha Mary, M.B., B.S. Durh., Court Hall, Kenton, S. Devon.
1897. Mumby, Bonner Harris, M.D. Aber., D.P.H. Cantab., Medical Superintendent, Borough Asylum, Portsmouth.
1911. Munro, William Thompson, M.B., C.B. Edin., Westgate, Frioekheim, Forfarshire.
1911. Munca-ster, Anna Lillian, M.B., Ch. Edin., Assistant Medical Officer and Pathologist, Bangour Village, Uphall, N.B.
1893. Murdoch, James William Aitken, M.B., C.M. Glasg., Medical Superintendent, Berks County Asylum, Wallingford.
1910. Murphy, Edward Patrick Harnett, B.A., L.A.H. Dubl., Cliftonville, Westbourne Gardens, Trowbridge, Wilts.
1905. Murrell, Christine Mary, M.D., B.S. Lond., Royal Free Hospital, 86, Porchester Terrace, Hyde Park, W.
1909. Myers, Charles Samuel, M.A., M.D. Cantab. (*University Lecturer in Experimental Psychology*), Great Shelford, Cambridgeshire.
1903. Navarra, Norman, M.R.C.S., L.R.C.P., City of London Mental Hospital, near Dartford, Kent.
1880. Neil, James, M.D. Aberd., M.P.C., Medical Superintendent, Warneford Asylum, Oxford.
1910. Neill, Alexander W., M.D., Ch.B. Edin., Assistant Physician, Craig House, Morningside Drive, Edinburgh.
1903. Nelis, William F., M.D. Durh., L.R.C.P. Edin., L.R.F.P.S. Glasg., Medical Superintendent, Newport Borough Asylum, Caerleon, Mon.
1875. Newington, Alexander, M.B. Camb., M.R.C.S. Eng., Woodlands, Ticehurst.
1873. Newington, H. Hayes, F.R.C.P. Edin., M.R.C.S. Eng., The Gables, Ticehurst, Sussex. (*Chairman Parliamentary Committee, 1896-1904.*) (*PRESIDENT, 1889.*) (*Treasurer since 1894.*)
1909. Nicoll, James, M.D., Ch.M. Edin., D.P.H. Lond., Woodside, King's Langley, R.S.O., Herts.
1869. Nicolson, David, C.B., M.D., C.M. Aber., M.R.C.P. Edin., F.S.A. Scot., 201, Royal Courts of Justice, Strand, W.C. (*PRESIDENT, 1895-6.*)
1893. Nobbs, Athelstane, M.D., C.M. Edin., Layton House, Putney, S.W.
1888. Nolan, Michael J., L.R.C.P.I., M.P.C., Medical Superintendent, District Asylum, Downpatrick.
1909. Norman, Hubert James, M.B., Ch.B. Edin., D.P.H. Edin., Assistant Medical Officer, Camberwell House Asylum, S.E.
1885. Oakshott, James A., M.D., M.Ch. (R.U.I.), Medical Superintendent, District Asylum, Waterford, Ireland.
1903. O'Doherty, Patrick, B.A., M.B., B.Ch. (R.U.I.), District Asylum, Omagh.
1904. O'Downey, Augustine Francis, L.R.C.P. & S. Edin., c/o J. F. Fagan, jun., L.R.C.S., Old Castle, Co. Meath.

1901. Ogilvy, David, B.A., M.D., B.Ch., L.M.Dub., Medical Superintendent, London County Asylum, Long Grove, near Epsom, Surrey.
1912. Ogilvie, Inn, M.B., Ch.B.Aberd., 117, Wilderspark Road, Warrington.
1911. O'Hagan, John Vincent, L.R.C.P.&I.Irel., Roden Place, Dundalk, Ireland.
1910. Oldershaw, George Francis, M.D., Ch.B.Liverp., D.P.H., Deputy Medical Officer, H.M. Prison; and 18, Walton Park, Liverpool.
1911. Oliver, Norman H., M.R.C.S., L.R.C.P.Lond., Charmouth Lodge, Richmond, Surrey.
1892. O'Mara, Francis, L.R.C.P.&S.I., District Asylum, Ennis, Ireland.
1886. O'Neill, Edward D., M.R.C.P.I., Medical Superintendent, The Asylum, Limerick.
1868. Orange, William, C.B., M.D.Heidelb., F.R.C.P.Lond., 11, Marina Court Bexhill-on-Sea. (PRESIDENT, 1883.)
1902. Orr, David, M.D., Ch.M.Edin., Pathologist, County Asylum, Prestwich, Lancs.
1910. Orr, James H. C., M.B., Ch.B.Edin., Rosslyn Lee Asylum, Midlothian.
1899. Osburne, Cecil A. P., F.R.C.S.Edin., L.R.C.P.Edin., The Grove, Old Catton, Norwich.
1890. Oswald, Landel R., M.B., Ch.M.Glasg., M.P.C., Physician Superintendent, Royal Asylum, Gartnavel, Glasgow.
1905. Paine, Frederick, M.R.C.S., L.R.C.P.Lond., Claybury Asylum, Woodford Bridge, Essex.
1907. Parker, James, L.R.C.S.&P. and L.M.Irel., Assistant Medical Officer, West Riding Asylum, Wakefield.
1898. Parker, William Arnot, M.B., Ch.M.Glasg., Medical Superintendent, Gartloch Asylum, Gartcosh, N.B.
1898. Pasmore, Edwin Stephen, M.D.Lond., M.R.C.P.Lond., Chelsham House, Chelsham, Surrey.
1899. Paton, Robert N., L.R.C.P., L.R.C.S.Edin., Medical Officer, Governor's House, H.M. Prison, Holloway, London, W.
1899. Patrick, John, M.B., Ch.B. (R.U.I.), District Asylum, Belfast.
1892. Patterson, Arthur Edward, M.D., C.M.Aber., Senior Assistant Medical Officer, City of London Asylum, Dartford.
1905. Paul, Maurice Eden, M.D.Brux., M.R.C.S., L.R.C.P.
1907. Peachell, George Ernest, M.B., B.S.Lond., M.R.C.S., L.R.C.P., Assistant Medical Officer, West Sussex County Asylum, Chichester.
1903. Pearce, Francis H., M.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., Shirlett Sanatorium, Broseley, Shropshire.
1910. Pearn, Oscar Phillips Napier, M.R.C.S., L.R.C.P.Lond., L.S.A., Assistant Medical Officer, London County Asylum, Horton, Epsom.
1910. Pearson, Robert Walter Joseph, L.R.C.P.&S.E., L.F.P.S.Glasg., Assistant Medical Officer, London County Asylum, Claybury, Woodford Bridge.
1893. Perceval, Frank, M.R.C.S.Eng., L.R.C.P.Lond., Medical Superintendent, County Asylum, Prestwich, Manchester, Lancashire.
1911. Perdran, Juan René, M.B., B.S.Lond., M.R.C.S., L.R.C.P.Lond., County Asylum, Herrison, Dorchester.
1911. Petrie, Alfred Alexander Webster, M.B., Ch.B.Edin., F.R.C.S.Edin., Assistant Medical Officer, London County Asylum, Bexley, Kent.
1878. Philipps, Sutherland Rees, M.D., C.M. Queen's Univ. Irel., F.R.G.S.
1875. Philipson, Sir George Hare, M.D. and M.A.Cantab., F.R.C.P.Lond., 7, Eldon Square, Newcastle-on-Tyne.
1908. Phillips, John George Porter, M.D., B.S.Lond., M.R.C.S., L.R.C.P., Assistant Physician, Bethlem Royal Hospital, Lambeth, S.E. (*Secretary of Educational Committee since 1912.*)

1910. Phillips, John Robert Parry, M.R.C.S., L.R.C.P.Lond., Assistant Medical Officer, City Asylum, Bristol.
1906. Phillips, Nathaniel Richard, M.R.C.S., L.R.C.P.Lond., Assistant Medical Officer, County Asylum, Abergavenny, Monmouthshire.
1905. Phillips, Norman Routh, M.D.Brux., M.R.C.S., L.R.C.P., St. Andrew's Hospital, Northampton.
1891. Pierce, Bedford, M.D.Lond., F.R.C.P., Medical Superintendent, The Retreat, York. (*Hon. Secretary N. and M. Division 1900-8.*)
1888. Pietersen, J. F. G., M.R.C.S., L.R.C.P.Lond., Ashwood House, Kingswinford, near Dudley, Stafford.
1896. Planck, Charles, M.A.Camb., M.R.C.S.Eng., L.R.C.P.Lond., Medical Superintendent, Brighton County and Borough Asylum, Haywards Heath.
1912. Plummer, Edgar Curnow, M.R.C.S., L.R.C.P.Lond., Medical Superintendent, Laverstock House, Salisbury.
1889. Pope, George Stevens, L.R.C.P. & L.R.C.S.Edin., L.R.F.P.&S.Glasg., Medical Superintendent, Somerset and Bath Asylum, "Westfield," near Wells, Somerset.
1909. Potter, Scott, L.R.C.S.&P.Irel., Laverstock House, Salisbury.
1876. Powell, Evan, M.R.C.S.Eng., L.S.A., Medical Superintendent, Borough Lunatic Asylum, Nottingham.
1910. Powell, James Farquharson, M.R.C.S., L.R.C.P., D.P.H.Lond., Assistant Medical Officer, The Asylum, Caterham, Surrey.
1912. Power, Pierce M. J., L.R.C.P. & S.I., R.A.M.C.Mess, Grosvenor Road, W.
1908. Prentice, Reginald Wickham, L.M.S.S.A.Lond., Beauworth Manor, Alresford, Hants.
1904. Pringle, Archibald Douglas, M.B., Ch.B.Aberd., Government Asylum, Pietermaritzburg, Natal, South Africa.
1875. Pringle, Henry T., M.D.Glasg., Hawtree, Ferndown, Wimborne.
1901. Pugh, Robert, M.D., Ch.B.Edin., Medical Superintendent, Brecon and Radnor Asylum, Talgarth, S. Wales.
1904. Quin, Henry C. E., L.R.C.P., L.R.C.S.Edin., Brook House, Upper Clapton.
1904. Race, John Percy, M.R.C.S., L.R.C.P., L.S.A., The Retreat, Witham, Essex.
1908. Rains, George Hooper, L.S.A.Lond. (address uncommunicated).
1899. Rainsford, F. E., M.D., B.A.Dubl., Resident Physician, Stewart Institute, Palmerston, co. Dublin.
1894. Rambaut, Daniel F., M.A., M.D.Univ. Dubl., Salop and Montgomery Asylum, Bicton Heath, Shrewsbury.
1910. Ranking, Surg. Roger Aiken, R.N., M.B., B.S.Lond., M.R.C.S., L.R.C.P.
1889. Raw, Nathan, M.D., B.S.Durh., L.S.Sc., F.R.C.S.Edin., M.R.C.P.Lond., 66, Rodney Street, Liverpool.
1893. Rawes, William, M.D.Durh., F.R.C.S.Eng., Medical Superintendent, St. Luke's Hospital, Old Street, London, E.C.
1870. Rayner, Henry, M.D.Aberd., M.R.C.P.Edin., 16, Queen Anne Street, London, W. (*PRESIDENT, 1884.*) (*General Secretary, 1878-89.*) (*Co-Editor of Journal 1895-1911.*)
1903. Read, George F., L.R.C.S., L.R.C.P.Edin., Hospital for the Insane, New Norfolk, Tasmania.
1899. Redington, John, F.R.C.S.&L.R.C.P.I., Portrane Asylum, Donabate, Co. Dublin.
1911. Reeve, Ernest Frederick, M.B., B.S.Lond., M.R.C.S., L.R.C.P., Senior Assistant Medical Officer, County Asylum, Rainhill, Lancs.
1911. Reid, Daniel McKinley, M.B., Ch.B.Glasg., Horton Asylum, Epsom.
1910. Reid, William, M.A.St. And., M.B., Ch.B., Senior Assistant Medical Officer, Burntwood Asylum, Lichfield.
1887. Reid, William, M.D.Aberd., Physician Superintendent, Royal Asylum, Aberdeen.

1886. Revington, George, M.A., M.D., B.Ch.Dubl., M.P.C., Medical Superintendent, Central Criminal Asylum, Dundrum, Ireland.
1907. Reynolds, Ernest Septimus, B.Sc.Vict., M.D., F.R.C.P.Lond., 2, St. Peter's Square, Manchester.
1899. Rice, David, M.D.Brux., M.R.C.S., L.R.C.P., Medical Superintendent, City Asylum, Hillesdon, Norwich.
1897. Richard, William J., M.A., M.B., Ch.M.Glasg., Medical Officer, Govan Parochial Asylum, Merryflats, Govan.
1899. Richards, John, M.B., Ch.M.Edin., F.R.C.S.E., Medical Superintendent, Joint Counties Asylum, Carmarthen.
1907. Rivers, William Gregory, M.B., Ch.B.Edin., Assistant Medical Officer, Cornwall County Asylum, Bodmin.
1911. Roberts, Henry Howard, M.D., Ch.B.Edin., D.P.H.Glasg., Ennerdale, Haddington, Scotland.
1903. Roberts, Noreliffe, M.D., B.S.Durh., Senior Assistant Medical Officer, Horton Asylum, near Epsom, Surrey.
1887. Robertson, Geo. M., M.B., F.R.C.P.Edin., Physician-Superintendent, Royal Asylum, Morningside, Edinburgh.
1908. Robertson, George Dunlop, L.R.C.S. & P.Edin., Assistant Medical Officer, District Asylum, Hartwood, Lanark.
1910. Robertson, Jane I., M.B., Ch.B.Glasg., c/o Marvon, 31, Tacovrie Terrace, Glasgow.
1895. Robertson, William Ford, M.D., C.M.Edin., 48, Northumberland Street, Edinburgh.
1900. Robinson, Harry A., M.D., Ch.B.Vict., 56, West Derby Street, Liverpool.
1911. Robinson, John Hargreaves, L.A.H.Dubl., 130, Sussex Road, Southport.
1911. Robson, Lieut. Hubert Alan Hirst, *I.M.S.*, M.R.C.S., L.R.C.P.Lond., c/o Messrs. Grindlay, Groome, Bombay, India.
1908. Rodgers, Frederick Millar, M.B., Ch.B.Vict., D.P.H., Senior Medical Officer, County Asylum, Winwick, Lancs.
1908. Rolleston, Charles Frank, B.A., M.B., Ch.B., B.A.O.Dub., Assistant Medical Officer, County of London, Manor Asylum, Epsom.
1895. Rolleston, Lancelot W., M.B., B.S.Durh., Medical Superintendent, Middlesex County Asylum, Napsbury, near St. Albans.
1879. Roots, William H., M.R.C.S.Eng., Canbury House, Kingston-on-Thames.
1899. Rorie, George Arthur, M.D., Ch.B.Edin., 163, Princes Street, Dundee.
1888. Ross, Chisholm, M.D.Syd., M.B., Ch.M.Edin., 147, Macquarie Street, Sydney, New South Wales.
1910. Ross, Donald, M.B., Ch.B.Edin., Assistant Physician, Royal Asylum, Morningside, Edinburgh.
1905. Ross, Sheila Margaret, M.D., Ch.B.Edin., Assistant Medical Officer of Health, 42, Carill Drive, Fallowfield, Manchester.
1899. Rotherham, Arthur, M.A., M.B., B.C.Cantab., Medical Superintendent, Darenth Asylum, Dartford, Kent.
1906. Rowan, Marriott Logan, B.A., M.D., (R.U.I.), Assistant Medical Officer, Derby County Asylum, Mickleover.
1884. Rowe, Edmund L., L.R.C.P.&S.Edin., Medical Superintendent, Borough Asylum, Ipswich.
1883. Rowland, E. D., M.B., Ch.M.Edin., The Public Hospital, George Town, Demerara, British Guiana.
1902. Rows, Richard Gundry, M.D.Lond., M.R.C.S., L.R.C.P., Pathologist County Asylum, Lancaster.
1877. Russell, Arthur P., M.B., M.R.C.P.Edin., The Lawn, Lincoln.
1912. Russell, John Ivison, M.B., Ch.B.Glasg., West Riding Asylum, Storthes Hall, Kirkburton, Huddersfield.



1912. Rutherford, Cecil, M.B., B.Ch.Dubl. Univ., Assistant Medical Officer, St. Edmondsbury, Lucan.
1907. Rutherford, Henry Richard Charles, L.R.C.P.&S.Irel., L.M., St. Patrick's Hospital, James's St., Dublin.
1896. Rutherford, James Mair, M.B., Ch.M., F.R.C.P.Edin., Brislington House, Bristol.
1907. Rutherford, James Whigham, L.R.C.P.&S.I., L.M., Lord Chancellor's Visitor, Dunlo Street, Ballinasloe, Co. Galway.
1908. Rattledge, W. E., M.R.C.S., L.R.C.P.Lond., County Asylum, Powick, Worcester.
1902. Sall, Ernest Frederick, M.R.C.S.Eng., L.R.C.P.Lond., Medical Superintendent, Borough Asylum, Canterbury.
1908. Samuels, William Frederick, L.M.&L.S.Dubl., Medical Superintendent, Central Asylum, Tangong, Rambutan, Federated Malay States.
1894. Sankey, Edward H. O., M.A., M.B., B.C.Cantab., Resident Medical Licensee, Boreatton Park Licensed House, Baschurch, Salop.
- \* Sankey, R. H. Heurtley, M.R.C.S.Eng., 3, Marston Ferry Road, Oxford.
1912. Sargeant, John Noel, M.B., B.S.Lond., M.R.C.S., L.R.C.P., Medical Superintendent, Newland House, Tooting Bec Road, S.W.
1873. Savage, Sir Geo. H., M.D.&F.R.C.P.Lond., 26, Devonshire Place, W. (*Late Editor of Journal.*) (PRESIDENT, 1886.)
1906. Scanlan, John J., L.R.C.P.&S.Edin., L.R.F.P.S.Glasg., D.P.H., 1, Castle Court, Cornhill, E.C.
1896. Scott, James, M.B., Ch.M.Edin., 98, Baron's Court Road, West Kensington, W.
1889. Scowcroft, Walter, M.R.C.S., Medical Superintendent, Royal Lunatic Hospital, Cheadle, near Manchester.
1880. Seecombe, George S., M.R.C.S., L.R.C.P., c/o Messrs. H. S. King and Co., 65, Cornhill, E.C.
1879. Seed, William Hy., M.B., Ch.M.Edin., The Poplars, 110, Waterloo Road, Ashton-on-Ribble, Preston.
1906. Sephton, Robert Poole, B.A.Cantab., M.R.C.S.Eng., L.R.C.P.Lond., County Lunatic Asylum, Lancaster.
1882. Seward, William J., M.B.Lond., M.R.C.S., 15, Chandos Avenue, Oakleigh Park, N.
1901. Shaw, B. Henry, M.B., B.Ch., B.A.O.(R.U.I.), Assistant Medical Officer, County Asylum, Stafford.
1909. Shaw, Capt. William Samuel J., M.B., B.Ch. (R.U.I.), I.M.S., Superintendent, Burmah Central Asylum, Rangoon.
1905. Shaw, Charles John, M.D., Ch.B., F.R.C.P.E., Medical Superintendent, Argyle and Bute Asylum, Lochgilphead.
1891. Shaw, Harold B., B.A., M.B., D.P.H.Camb., Medical Superintendent, Isle of Wight County Asylum, Whitecroft, Newport, Isle of Wight.
1904. Shaw, Patrick, L.R.C.P.&S.Edin., Medical Officer, Hospital for the Insane, Kew, Victoria, Australia.
- \* Shaw, T. Claye, B.A., M.D.Lond., F.R.C.P.Lond., 33, Weymouth Street, W.
1912. Shaw, John James McIntosh, M.A., M.B., Ch.B.Edin., Assistant Medical Officer, London County Asylum, Bexley, Kent.
1882. Sheldon, Thomas S., M.B.Lond., M.R.C.S., Parkside, Lache Lane, Chester.
1909. Shepherd, George Ferguson, F.R.C.S., L.R.C.P.Irel., D.P.H., Daisy Hill, Drumachree, Armagh.
1900. Shera, John E. P., M.D.Bru.x., L.R.C.P.&S.Irel., Somerset County Asylum, Wells, Somerset.
1912. Sheridan, Gerald O'Reilly, M.B., B.Ch. (R.U.I.), Assistant Medical Officer, Portrane Asylum, Dublin.
1877. Shuttleworth, George E., M.D.Heidelb., M.R.C.S. and L.S.A.Eng., B.A. Lond., 8, Lancaster Place, Hampstead, N.W. (*Late Medical Superintendent, Royal Albert Asylum, Lancaster.*)
1901. Simpson, Alexander, M.A., M.D.Aber., Medical Superintendent, County Asylum, Winwick, Newton-le-Willows, Lancashire.

1905. Simpson, Edward Swan, M.B., Ch.B.Edin., East Riding Asylum, Beverley, Yorks.
1911. Simpson, John C., M.B., Ch.B.Edin., Fernbank, Wick, Caithness, N.B.
1888. Sinclair, Eric, M.D.Glasg., Richmond Terrace, Demain, Sydney, N.S.W.
1891. Skeen, James Humphry, M.B., Ch.M.Aber., Medical Superintendent, Kirklands Asylum, Bothwell.
1912. Skene, Leslie Henderson, M.B., Ch.B.Edin., Assistant Medical Officer, Hartwood Asylum, Lanarkshire.
1900. Skinner, Ernest W., M.D., Ch.M.Edin., Mansfield, Rye, Sussex.
1901. Slater, George N. O., M.D.Lond., M.R.C.S., L.R.C.P., Assistant Medical Officer, Essex County Asylum, Brentwood.
1897. Smalley, Herbert, M.D.Durh., L.R.C.P., M.R.C.S., Prison Commission, Home Office, Whitehall, S.W.
1910. Smith, Gayton Warwick, M.D.Lond., B.S.Dunelm, D.P.H.Cantab., M.R.C.S., L.R.C.P., Assistant Medical Officer, Middlesex County Asylum, Tooting, S.W.
1905. Smith, George William, M.B., Ch.M.Edin., Holloway Sanatorium, Virginia Water, Surrey.
1907. Smith, Henry Watson, M.B., Ch.B.Aberd., Medical Superintendent, Lebanon Hospital for the Insane, Asfurujeh, near Beyrout, Syria.
1899. Smith, John G., M.D., Ch.M.Edin., Herts County Asylum, Hill End, St. Albans, Herts.
1885. Smith, R. Percy, M.D., B.S.Lond., F.R.C.P., M.P.C., 36, Queen Anne Street, Cavendish Square, W. (*General Secretary*, 1896-7. *Chairman Educational Committee*, 1899-1903). (*PRESIDENT*, 1904-5.)
1911. Smith, Thomas Waddelow, M.R.C.S., L.R.C.P.Lond., Assistant Medical Officer, Devon County Asylum, Exminster.
1884. Smith, W. Beattie, F.R.C.S.Edin., L.R.C.P.Edin., 4, Collins Street, Melbourne, Victoria.
1903. Smith, William Maule A., M.D., Ch.B.Edin., M.R.C.P.Edin., Senior Assistant Medical Officer, Worcester County Asylum, Barnsley Hall, Bromsgrove.
1901. Smyth, Robt. B., M.A., M.B., Ch.B.Dubl., Medical Superintendent, County Asylum, Gloucester.
1899. Smyth, Walter S., M.B., B.Ch. (R.U.I.), Assistant Medical Officer, County Asylum, Antrim.
1885. Soutar, James Grieg, M.B., Ch.M.Edin., Medical Superintendent, Barnwood House, Gloucester. (*PRESIDENT*, 1912-13.)
1906. Spark, Percy Charles, M.R.C.S., L.R.C.P.Lond., Medical Superintendent, London County Asylum, Banstead, Surrey.
1883. Spence, John Buchan, M.B., Ch.M.Edin., L.R.C.P.&S., The Asylum, Colombo, Ceylon.
1875. Spence, J. Beveridge, M.D., M.C.Queen's Univ., Medical Superintendent, Burntwood Asylum, near Lichfield. (*First Registrar*, 1892-1899; *Chairman Parliamentary Committee*, 1910-12.) (*PRESIDENT*, 1899-1900.)
1913. Spensley, Frank Oswald, M.R.C.S., L.R.C.P., Senior Medical Officer, Darenth Asylum, Dartford, Kent.
1891. Stausfield, T. E. K., M.B., Ch.M.Edin., Medical Superintendent, London County Asylum, Bexley, Baldwin's Park, Bexley, Kent.
1901. Starkey, William, M.B., B.Ch., B.A.O.Roy. Univ. Irel., Assistant Medical Officer, Lancashire County Asylum, Prestwich, near Manchester.
1907. Steele, Patrick, M.D., Ch.B.Edin., Assistant Medical Officer, Bangour Village, Dechmont, Linlithgowshire.
1898. Steen, Robert H., M.D.Lond., Medical Superintendent, City of London Asylum, Stone, Dartford. (*Hon. Sec. S.E. Division*, 1905-10.)
1912. Stevenson, William Edward, M.B., B.S.Durham, Senior Assistant Medical Officer, City and County Asylum, Hereford.
1909. Steward, Sidney John, M.D., B.C.Cantab., M.R.C.S., L.R.C.P.Lond., Assistant Medical Officer, 8, The Court, Bury Fields, Guildford.
1912. Stewart, Ronald, M.B., Ch.B.Glasg., Assistant Medical Officer, Gartloch Mental Hospital, Gartcosh, Glasgow.

1887. Stewart, Rothsay C., M.R.C.S.Eng., L.S.A., Leicestershire and Rutland Asylum, Narborough, near Leicester.
1905. Stilwell, Henry Francis, L.R.C.P.S.E., The Hall, Headeorn, Kent.
1899. Stilwell, Reginald J., M.R.C.S., L.R.C.P., Moorcroft House, Hillingdon, Middlesex.
1897. Stoddart, William Henry Butter, M.D., B.S., F.R.C.P.Lond., M.R.C.S.Eng., Resident Physician and Superintendent, Bethlem Royal Hospital, London, S.E. (*Hon. Sec. Educational Committee, 1908-1912.*)
1909. Stokes, Frederick Ernest, M.B., Ch.B.Glasg., D.P.H.Cantab., Assistant Medical Officer, Borough Asylum, Portsmouth.
1905. Strathearn, John, M.D., Ch.B.Glasg., 23, Magdalen Yard Road, Dundee.
1903. Stratton, Percy Haughton, M.R.C.S., L.R.C.P.Lond., The Royal Societies Club, St. James's Street, S.W.
1885. Street, C. T., M.R.C.S., L.R.C.P., Haydock Lodge, Ashton, Newton-le-Willows, Lancashire.
1908. Stuart, Francis Arthur Knox, B.A.Cantab., L.S.A.Lond., Assistant Medical Officer, West Sussex Asylum, Chichester.
1909. Stuart, Frederick J., M.R.C.S., L.R.C.P.Lond., Senior Assistant Medical Officer, Northampton County Asylum, Bettywood.
1900. Sturrock, James Prain, M.A.St.And., M.D., C.M.Edin., H.M. Prison, Perth, N.B.
1886. Suffern, Alex. C., M.D., M.Ch. (R.U.I.), Medical Superintendent, Ruberry Hill Asylum, near Bromsgrove, Worcestershire.
1894. Sullivan, William C., M.D. (R.U.I.), Rampton Criminal Lunatic Asylum, South Leverton, Lincolnshire.
1910. Sutherland, Joseph Roderick, M.B., Ch.B.Glasg., M.R.C.S., L.R.C.P., 468, Great Western Road, Glasgow.
1877. Swanson, George L., M.D.Edin., The Pleasance, Heworth Moor, York.
1908. Swift, Eric W. D., M.B.Lond., Medical Superintendent, Orange River Colony Govt. Asylum, Bloemfontein.
1901. Sykes, Arthur, M.R.C.S., L.R.C.P., Oak Villas, Barkerhouse Road, Nelson, Lancs.
1857. Tate, William B., M.D.Aber., M.R.C.P.Lond., M.R.C.S.Eng., Medical Superintendent, Lunatic Hospital, The Coppice, Nottingham.
1908. Tattersall, John, M.R.C.S., L.R.C.P.Lond., Assistant Medical Officer, London County Asylum, Hanwell, W.
1910. Taylor, Arthur Londoun, B.Sc., M.B., Ch.B.Edin., Borough Asylum, Rowditch, Derby.
1897. Taylor, Frederic Ryott Percival, M.D., B.S.Lond., M.R.C.S.Eng., L.R.C.P.Lond., Medical Superintendent, East Sussex Asylum, Hellingly.
1908. Thomas, Joseph D., B.A., M.B., B.C.Cantab., Northwoods House, Winterbourne, Bristol.
1911. Thomas, William Rees, M.D., B.S.Lond., Pathologist, East Sussex Asylum, Hellingly.
1880. Thomson, David G., M.D., C.M.Edin., Medical Superintendent, County Asylum, Thorpe, Norfolk.
1903. Thomson, Herbert Campbell, M.D., F.R.C.P.Lond., Assist. Physician Middlesex Hospital, 34, Queen Anne Street, W.
1905. Thomson, James Hutcheon, M.B., Ch.B.Aberd., Powick Asylum, Worcester.
1905. Tidbury, Robert, M.D., M.Ch. (R.U.I.), L.M., Heathlands, Foxhall Road, Ipswich.
1901. Tighe, John V. G. B., M.B., B.Ch., B.A.O.Irel., North Riding Asylum, Clifton, Yorks.
1903. Topham, J. Arthur, B.A.Cantab., M.R.C.S., L.R.C.P.Lond., County Asylum, Chartham, Kent.
1896. Townsend, Arthur A. D., M.D., B.Ch.Birm., M.R.C.S., L.R.C.P., Assistant Medical Officer, Hospital for Insane, Barnwood House, Gloucester.
1904. Treadwell, Oliver Ferreira Naylor, M.R.C.S.Eng., L.S.A., H. M. Prison, Parkhurst, I. of W.

1903. Tredgold, Alfred F., M.R.C.S., L.R.C.P., 6, Dapdune Crescent, Guildford, Surrey.
1881. Tuke, Charles Molesworth, M.R.C.S.Eng., Chiswick House, Chiswick.
1888. Tuke, John Batty, jun., M.D., F.R.C.P.Edin., Resident Physician, Saughton Hall, Edinburgh; Linden Lodge, Loanhead, Midlothian.
1885. Tuke, T. Seymour, M.A., M.B., B.Ch.Oxon., M.R.C.S.E., Chiswick House, Chiswick, W.
1877. Turnbull, Adam Robert, M.B., C.M.Edin., Medical Superintendent, Fife and Kinross District Asylum, Cupar. (*Hon. Secretary for Scottish Division, 1894-1901.*) (PRESIDENT-ELECT, 1909-10.)
1906. Turnbull, Peter Mortimer, M.B., R.Ch.Aberd., Tooting Bee Asylum, Tooting, S.W.
1909. Turnbull, Robert Cyril, M.D.Lond., M.R.C.S., L.R.C.P., Medical Superintendent, Essex County Asylum, Colchester.
1889. Turner, Alfred, M.D., Ch.M.Edin., Plympton House, Plympton, S. Devon.
1906. Turner, Frank Douglas, M.B.Lond., M.R.C.S., L.R.C.P., Medical Officer, Royal Eastern Counties Institution, Colchester.
1890. Turner, John, M.B., Ch.M.Aberd., Medical Superintendent, Essex County Asylum, Brentwood.
1878. Urquhart, Alex. Reid, M.D., F.R.C.P.E., Physician Superintendent, James Murray's Royal Asylum, Perth. (*Co-Editor of Journal, 1894-1910.*) (*Hon. Sec. for Scottish Division, 1886-94.*) (PRESIDENT, 1898-9.)
1904. Vincent, George A., M.B., B.Ch.Edin., Assistant Medical Superintendent, St. Ann's Asylum, Trinidad, B.W.I.
1894. Vincent, William James, M.B., B.S.Durh., M.R.C.S., L.R.C.P., Medical Superintendent, Wadsley Asylum, near Sheffield.
1911. Waldron, Ethel Annie, M.B., Ch.B.Birm., Assistant Medical Officer, West Riding Asylum, Wakefield.
1896. Walker, William F., L.R.C.S.&L.M.Edin., L.S.A.Lond.
1908. Wallace, John Andrew Leslie, M.D., Ch.B.Edin., M.P.C., The Hospital, Gladesville, Sydney, N.S.W.
1912. Wallace, Vivian, L.R.C.P. & S.I., Assistant Medical Officer, Mullingar District Asylum, Mullingar.
1889. Warnock, John, M.D., Ch.M., B.Sc.Edin., Abassia, nr. Cairo, Egypt.
1910. Waters, John Patrick, M.B., Ch.B., B.A.O. (R.U.I.), Assistant Medical Officer, County Asylum, Suffolk.
1895. Waterston, Jane Elizabeth, M.D.Bru., L.R.C.P.I., L.R.C.S.Edin., 85, Parliament Street, Box 78, Cape Town, South Africa.
1902. Watson, Frederick, M.B., Ch.M.Edin., The Grange, East Finchley, London, N.
1891. Watson, George A., M.B., Ch.M.Edin., M.P.C., Lyons House, Rainhill, Liverpool.
1908. Watson, H. Ferguson, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., Tarbeg, Ochiltree, Ayrshire.
1885. Watson, William Riddell, L.R.C.S. and L.R.C.P.Edin., Govan District Asylum, Hawkhead, Paisley.
1910. Watson, William Scott, M.B., Ch.B.Edin., c/o Mental Hospital Dept., Government Buildings, Wellington, New Zealand.
1911. Webber, Leonard Mortis, M.R.C.S., L.R.C.P.Lond., Assistant Medical Officer, Surrey County Asylum, Netherne, Merstham.
1911. White, Edward Barton, M.R.C.S., L.R.C.P.Lond., Assistant Medical Officer, Cardiff City Mental Hospital, Whitechurch.
1884. White, Ernest William, M.B.Lond., M.R.C.P.Lond., Betley House, nr. Shrewsbury. (*Hon. Sec. South-Eastern Division, 1897-1900.*) (*Chairman Parliamentary Committee, 1904-7.*) (PRESIDENT 1903-4.)
1911. White, H. Wilson, M.B., B.Ch. (R.U.I.), Assistant Medical Officer, London County Asylum, Long-Grove, Epsom.
1905. White, Robert George, M.A., M.B., B.Sc., Ch.B.Glasg., Pathological Department, School of Medicine, Cairo, Egypt.
1905. Whittington, Richard, M.A., M.D.Oxon., M.R.C.S., L.R.C.P., Downford, Montpellier Road, Brighton.

1889. Whitwell, James Richard, M.B., Ch.M.Edin., Medical Superintendent, Suffolk County Asylum, Melton Woodbridge.
1903. Wigan, Charles Arthur, M.D.Durh., M.R.C.S.Eng., Deepdene, Portishead, Somerset.
1883. Wiglesworth, Joseph, M.D., F.R.C.P.Lond., Springfield House, Winscombe, Somerset. (PRESIDENT, 1902-3.)
1913. Wilkins, William Douglas, M.B., Ch.B.Vict., M.R.C.S., L.R.C.P., Assistant Medical Officer, County Asylum, Rainhill, Lancashire.
1900. Wilkinson, H. B., M.R.C.S., L.R.C.P., Assistant Medical Officer Plymouth Borough Asylum, Blackadon, Ivybridge, South Devon.
1911. Will, John Henderson, M.B., Ch.B.Aberd., Te-Kiriti, New Zealand.
1887. Will, John Kennedy, M.A., M.D., Ch.M.Aberd., Bethnal House, Cambridge Road, N.E.
1907. Williams, Charles E. C., M.A., M.D., B.Ch.Dubl., Assistant Medical Officer, Holloway Sanatorium, Virginia Water, Surrey.
1905. Williams, David John, M.R.C.S., L.R.C.P.Lond., Medical Superintendent, The Asylum, Kingston, Jamaica.
1912. Wilson, Samuel Alexander Kinneir, M.D., B.Sc.Edin., M.R.C.P.Lond., Registrar, National Hospital, Queen's Square, 63, Wimpole Street, London, W.
1897. Winder, W. H., M.R.C.S., L.R.C.P.Lond., D.P.H.Cantab., Deputy Medical Officer, H.M. Convict Prison, Aylesbury.
1875. Winslow, Henry Forbes, M.D.Lond., M.R.C.P.Lond., 29, Belsize Square, S. Hampstead, N.W.; and Little Combe, Charlton.
1899. Wolseley-Lewis, Herbert, M.D.Brux., F.R.C.S.Eng., Medical Superintendent, Kent County Asylum, Barming Heath, Maidstone. (*Secretary Parliamentary Committee, 1907-12. Chairman since 1912.*)
1904. Wood, Martin Stanley, M.B., Ch.B.Vict., Royal Asylum, Cheshire, Cheshire.
1869. Wood, T. Outtersson, M.D.Durh., M.R.C.P.Lond., F.R.C.P., F.R.C.S. Edin., 40, Margaret Street, Cavendish Square, W. (PRESIDENT, 1905-6.)
1912. Woods, James Cowan, M.B., B.S.Lond., M.R.C.S., L.R.C.P., Assistant Medical Officer, The Priory, Rockhampton.
1885. Woods, J. F., M.D.Durh., M.R.C.S., 7, Harley Street, Cavendish Square, W.
1912. Wootton, John Charles, M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer, Cane Hill Asylum, Surrey.
1900. Worth, Reginald, M.B., B.S.Durh., M.R.C.S., L.R.C.P., Middlesex Asylum, Tooting, S.W.
1862. Yellowlees, David, LL.D.Glas., M.D.Edin., F.R.F.P.S.Glasg., 6, Albert Gate, Dowan Hill, Glasgow. (PRESIDENT, 1890.)
1910. Younger, Edward George, M.D.Brux., M.R.C.P.Lond., M.R.C.S., L.S.A., Physician to the Finsbury Dispensary, 2, Mecklenburgh Square, W.C.

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1872. { Coutenay, E. Maziere, B.A., M.B., M.Ch.Univ. Dubl., Formerly Inspector  
 1891. { of Lunatics in Ireland, Lunacy Office, Dublin Castle. (*Secretary  
 for Irish Division, 1876-87.*)

*Members.*

1864. Bayley, Joseph, M.R.C.S.Eng., Medical Superintendent, St. Andrew's  
 Hospital, Northampton.  
 1881. Brayn, Sir R., L.R.C.P.Lond., Gledholt, Hereford Road, Southsea.  
 1894. Cullinan, Henry M., L.R.C.P.I., L.R.C.S.I., Medical Superintendent,  
 Portrane House, Donabate, Co. Dublin.  
 1873. Elliott, G. Stanley, M.R.C.P.Edin., F.R.C.S.Edin., 31, Belvedere Road,  
 Upper Norwood, S.E.  
 1904. Gibb, James Alex., M.B., Ch.B.Aberd., "Heanor," Derbyshire.  
 \* Gordon, William S., M.A., M.B., T.C.D., District Asylum, Mullingar.  
 1905. Hallett, H. G., M.R.C.S., L.R.C.P.Lond., Darenth Asylum, Dartford,  
 Kent.  
 1905. Robertson-Milne, Major Charles John, M.B., Ch.M.Aberd., Bengal  
 Central Asylum, Berhampore, Bengal.  
 1911. Seroope, Geoffrey, M.B., B.Ch.Dub., Assistant Medical Officer, Central  
 Asylum, Dundrum.  
 1898. Skeen, William St. John, M.B., Ch.M.Aberd., County Asylum, Winterton,  
 Ferryhill, Durham.

List of those who have passed the Examination for the Certificate of Efficiency in Psychological Medicine, entitling them to append M.P.C. (Med.-Psych. Certif.) to their names.

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